



## Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An autonomous Institution, Aided by Government of Karnataka  
Affiliated to Visvesvaraya Technological University, Accredited by NBA  
Approved by All India Council for Technical Education (AICTE), New Delhi)  
BENGALURU - 560 056

### Proceedings of the Internal Quality Assurance Cell (IQAC) Quarterly Meeting held on Saturday, 25<sup>th</sup> JUNE 2022

Proceedings of the Internal Quality Assurance Cell (IQAC) meeting held on Saturday, the 25<sup>th</sup> June 2022 at 11.00 a.m. in the Board Room of Dr. Ambedkar Institute of Technology, Bengaluru - 56, Karnataka.

#### Agenda:

1. Confirmation of the minutes of Previous IQAC Meeting held on 18-09-2021
  - 1.1. Proceedings of the previous IQAC meeting held on 18-09-2021
  - 1.2 Action taken report on the Minutes of IQAC Meeting held on 18-09-2021
2. Information to IQAC members
3. Approval for Incubation & Start-up Policy, IPR Policy and Consultancy Policy
4. Approval for R&D Policy
5. Ratification for AQAR 2019-20
6. Action Plan for next six months
7. Any other issues

#### Members Present:

Sl.No.	Role	Name	Designation
01	Members from the Management	1. Sri A.R. Krishnamurthy 2. Dr. B. N. Umesh	Secretary, PVPWT Treasurer, PVPWT
02	Mentor	Dr. Shivaprakash	Mentor
03	Chairperson: Head of the Institution	Dr. M. Meenakshi	Principal
04	Teachers to represent all levels (Assistant and Associate Professors) (three to eight)	1. Dr. M.V. Vijayakumar 2. Dr. K. N. Anuradha 3. Dr. Prashanth C. R 4. Dr. G.V. Jayaramaiah 5. Dr. NandiniPrasad. K.S 6. Dr. Gowrishankar. S 7. Dr. H.V. Govindaraju 8. Dr. K.R. Shylaja 9. Dr. Arvind. H. L 10. Dr. Soundeswaran. S 11. Dr. R.Rajeshwari	Vice-Principal Dean (A) Dean (E) Dean (R&D) Dean (Intl.Afrs) Dean (III) Coordinator IQAC Coordinator IQAC Asst. Prof. ETE Asso. Prof, Chem Asst. Prof, MBA
04	The Senior administrative officer (Office Superintendent/Manager)	1. Sri. Doddaswamy 2.Mrs. Vijayalakshmi	A.A.O Accounts Officer
05	One nominee each from the Local Society/Trust, Students, and Alumni	1.Mr.Yashas.L 2.Sharan Basappa	Student, ETE (UG) Alumni (UG-ISE)

06	One nominee each from Employers/Industrialists/Stakeholders	1. Sri. Vikrant 2. Sri. Nataraj. K. M	CTO, TiLa.com Technical Architect, LG Soft India
07	One of the senior teachers as the Coordinator of the IQAC	Dr. M. V. Mandi	Member Secretary IQAC/Dean (P&D)

### **Leave of Absence Granted**

<b>Sl. No.</b>	<b>Name</b>	<b>Designation</b>
1	Dr. M.V. Vijayakumar	Vice-Principal
2	Sri. Doddaswamy	A.A.O

Sri A. R. Krishnamurthy, Managing Trustee/Secretary, PVPWT welcomed all the members for the meeting and later the meeting started with a formal welcome address by Dr. Meenakshi, Principal. The Dean (P&D) and the Member Secretary, IQAC welcomed all the members for the meeting and presented the agenda before the committee members.

### **Agenda 1:** Confirmation of the minutes of Previous IQAC Meeting held on 18-09-2021

#### 1.1. Proceedings of the previous IQAC meeting held on 18-09-2021

During this Sri A. R. Krishnamurthy, Secretary, PVPWT insisted that quarterly meetings of IQAC should be conducted, planned regularly and agenda of the meetings should be approved from Mentor. Principal informed that the IQAC cell had conducted monthly internal meetings. Hon'ble Secretary informed the Dean (P&D) to submit the proceedings of Internal IQAC meetings held.

#### 1.2 Action taken report on the Minutes of IQAC Meeting held on 18-09-2021

Dean (P&D) and the Member Secretary, IQAC highlighted the action taken report of previous IQAC meeting held on 18<sup>th</sup> September 2021. Hon'ble Secretary informed the Dean (R&D) to brief about the action taken report of Industry Advisor Board (IAB) constituted by all the departments and informed to submit

the progress report during next meeting. He was also instructed to conduct R&D Conclave along with IAB members in the month of August 2022.

Mr. Vikranth and Mr. Nataraj K.M, members suggested to include Skill development activities in curriculum to meet the industry needs and ensure employability of students.

### **Agenda 2: Information to IQAC members**

Dean (P&D) briefed about the events carried out in IQAC cell related to NBA & NAAC and also briefed about IQAC lecture series conducted on last Friday of every month. Dr. B. N. Umesh, Treasurer, PVPWT informed the Principal to make attendance mandatory for all faculty members to be present in IQAC lecture series. Hon'ble Secretary, also informed to brief about external Academic & Administrative Audit (AAA) outcomes. He also suggested to verify NAAC documents by Mentor well before submission and his suggestions should be recorded for improving the quality of documents. Hon'ble Treasurer recommended that professors from every department should be assigned for the verification of NBA and NAAC documents in future.

While discussing on Green and Environmental audit, Dean (P&D) informed Dr. Soundareshwari to brief about auditing outcomes. The members suggested to implement Sewage Treatment Plant (STP) and Solar energy resources in the campus. The committee also recommended to put up energy and green Campus awareness boards in the campus to create awareness among students and staff members.

### **Agenda 3: Approval for Incubation & Start-up Policy, IPR Policy and Consultancy Policy**

Dean (I-I-I) presented the policies framed for Incubation & Start-up cells, IPR Cell and Consultancy. Hon'ble Treasurer recommended to establish incubation centres in the campus. He also informed the Dean (I-I-I) to work on providing internships for all students of core branches including civil and Mechanical

engineering. Mr. Vikranth showed interest in involving himself with students coming out with innovative ideas to convert them into Patents and products. After detailed discussion, members approved the policies for Incubation & Start-up cells, IPR Cell and Consultancy.

#### **Agenda 4: Approval for R&D Policy**

Dean (R&D) proposed policies framed for R&D activities for improving the quality of research. The members approved the same.

Hon'ble Treasurer insisted that faculty must be encouraged to publish papers in Q<sub>1</sub> and Q<sub>2</sub> journals. He was also informed to Dean (R&D) to increase the awareness of writing proposals among faculty by conducting regular workshops, seminars and symposia by inviting eminent researchers in areas of concern. He also suggested to improve the revenue generation from consultancy in each department.

Mr. Vikranth and Mr. Nataraj suggested to train the faculty by forming groups in each area and to do regular brainstorming sessions to arrive at research ideas.

#### **Agenda 5: Ratification for AQAR 2019-20**

Dean (P&D) presented the draft of Annual Quality Assurance Report (AQAR) for the academic year 2019-2020. After detailed discussion the members ratified the same.

#### **Agenda 6: Action Plan for next six months**

Dean (P&D) presented a tentative action-plan for the next six months to the members. Hon'ble Treasurer suggested to include NSS and Sports activities in action plan.

#### **Agenda 7: Any other issues**

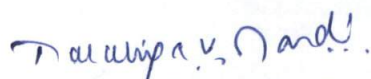
All the deans of various portfolios presented their activities conducted and the action plan for next 3 months.

During the meeting, the members have suggested the following points.

- Members suggested to Dean (I-I-I) to create internship opportunities for other branch students.
- Members informed to Dean (R&D) to prepare action plan to improve the R&D contribution for NIRF ranking. He was also suggested to conduct regular workshops, seminars and symposia to create R&D awareness.
- Members suggested to Dean (Examination) to keep track of international students or students who are going for higher studies. The result declaration schedule should be maintained to meet the international admission schedule and ensure convenience of students taking admission in abroad universities. He was also instructed to ensure entry of marks from all the faculty on time and consistent.
- Mr. Nataraj K. M. suggested to create IPR groups to discuss the possible proposals that can be generated to apply for patents. The faculty members should be encouraged to discuss and involve industry advisors in proposal writing. The student involvement should also be made mandatory in patents applications. He recommended to use Open Source platforms for imbining R&D skills in students and faculty.
- The student member suggested that in their regular curriculum one or two modules can be delivered by inviting industry personals.
- Members informed to Dean (Academics) to prepare action plan for effective implementation of NEP 2020 and also to submit faculty-wise approved time-table from all the departments.
- Members suggested to Dean (Foreign Affairs) to create opportunities for students to carryout international internships. She was suggested to set up a counselling cell for international admission and to generate revenue. Mr. Vikranth suggested to create a group of international alumni to guide our students.
- Hon'ble Treasurer suggested to establish industry oriented innovation labs in every department for Research & Development under Corporate Social Responsibility (CSR) scheme by inviting industries.

Sri. A.R. Krishnamurthy, Secretary, PVPWT thanked all the members for their valuable suggestions to improve the academic quality and for the growth of Institution.

The Member secretary expressed his gratitude to the members for the suggestions given by them and concluded the meeting with vote of thanks to the chair.



**Dr. Mahalinga V. Mandi**

IQAC Coordinator  
IQAC Co-Ordinator

**Dr. Ambedkar Institute of Technology**  
**Bengaluru - 560 056.**



**Dr. M. Meenakshi**

Principal/IQAC Chairman  
IQAC Chairman

**Dr. Ambedkar Institute of Technology**  
**Bengaluru - 560 056.**



**Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY,  
Bengaluru-560056**

**IQAC Quarterly Meeting**

**25<sup>th</sup> June 2022**



**BDA Outer Ring Road, Near Jnana Bharathi Campus, Mallathahalli  
Bengaluru-560056**

Phone No: 080-23211232, 23218534: Fax: 080-23217789  
Website: [www.dr-ait.org](http://www.dr-ait.org)

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Panchajanya Vidya Peetha Welfare Trust (Regd)

# Dr. Ambedkar Institute of Technology

Aided by Govt. of Karnataka, An Autonomous Institution, Affiliated to Visvesvaraya Technological University, Belagavi,  
Approved by All India Council for Technical Education (AICTE), New Delhi, Accredited by NBA and NAAC with 'A' Grade

BDA Outer Ring Road, Mallathahalli, Bengaluru - 560 056

Ref. No. Dr. AIT/IQAC/489/2022-23

Date : .....22-06-2022.....

## MEETING NOTICE

The Internal Quality Assurance Cell (IQAC) Meeting of Dr. Ambedkar Institute of Technology, Bengaluru-560056 is scheduled to be held on 25-06-2022 (Saturday) at 11.00 AM in the Board Room of Dr. Ambedkar Institute of Technology, Bengaluru-56 in blended mode. All the members are requested to make it convenient to attend the meeting.

  
Principal/Chairperson

To,

All IQAC Members



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BENGALURU - 560 056

Date: 18-09-2021

### Proceedings of the Internal Quality Assurance Cell (IQAC) Meeting held on Thursday, 18<sup>th</sup> September 2021

Proceedings of the Internal Quality Assurance Cell (IQAC) meeting held on Saturday, the 18<sup>th</sup> September 2021 at 11.00 a.m. in the Board Room of Dr. Ambedkar Institute of Technology, Bengaluru - 56, Karnataka.

#### Agenda:

1. Information to IQAC members
2. Confirmation of the minutes of IQAC Meeting held on 29-04-2019
3. Action taken report on the Minutes of IQAC Meeting held on 29-04-2019
4. Ratification of AQAR 2017-2018 and 2018-2019
5. Approval for draft of Good Governance document
6. Any other issues

#### Members Present:

Sl.No	Role	Name	Designation
01	Members from the Management	1. Sri.A.R.Krishnamurthy 2. Dr. B. N. Umesh	Secretary, PVPWT Treasurer, PVPWT
02	Chairperson: Head of the Institution	Dr. M. Meenakshi	Principal
03	Teachers to represent all levels (Assistant and Associate Professors) (three to eight)	1. Dr.M.V.Vijayakumar 2. Dr. K. N. Anuradha 3. Dr. Prashanth. C. R 4. Dr.G.V.Jayaramaiah 5. Dr.NandiniPrasad.K.S 6. Dr. Gowrishankar. S 7. Dr.H.V.Govindaraju 8. Dr.K.R.Shylaja 9. Dr.Arvind. H. L 10. Dr.Soundeswaran. S 11. Dr.R.Rajeshwari	Vice-Principal Dean (A) Dean (E) Dean (R&D) Dean (Foreign Affairs) Dean (III) Coordinator IQAC Coordinator IQAC Asst. Prof. ETE Asst. Prof, Chemistry Asst. Prof, MBA
04	The Senior administrative officer (Office Superintendent/Manager)	1. Sri. Doddaswamy 2. Mrs. Vijayalakshmi	A.A.O Accounts Officer
05	One nominee each from the Local Society/Trust, Students, and Alumni	1.Mr.Yashas.L 2. Mr. Narasimha Basappa	Student, ETE (UG) Alumni (UG-ISE)
06	One nominee each from Employers/Industrialists/Stakeholders	1. Sri. Vikrant 2. Sri. Nataraj. K. M	CTO, TiLa.com Technical Architect, LG Soft India
07	One of the senior teachers as the Coordinator of the IQAC	Dr. M. V. Mandi	Member Secretary IQAC/Dean (P&D)

The meeting started with a formal welcome address by Dr. Meenakshi, Chairperson/Principal. Chairperson briefed about the college status with respect to NAAC and NBA to the committee members. Chairperson then informed Dr. M. V. Mandi, Member Secretary, IQAC to present the agenda of the meeting. Member Secretary welcomed all the members of IQAC for the meeting and presented the agenda before the committee members.

**Agenda 1: Information to the IQAC members**

The Dean P&D and the Member Secretary of the IQAC informed about IQAC and constitution of new IQAC. He also thanked all the outgoing members of IQAC and their contributions in the development of the Institution. He briefed about the importance of NAAC accreditation, NBA accreditation and QS I-Gauge rating. The current status of NBA accreditation of various programmes in the institute is also informed to all the members. He also mentioned about the process and significance of QS I-Gauge rating and certification.

**Agenda 2: Confirmation of Minutes of previous IQAC meeting held on 29.04.2019**

The Members confirmed the same.

**Agenda 3: Action taken report on the Minutes of previous IQAC Meeting held on 24-04-2019**

With the permission of Chairperson of IQAC, Dr. Mahalinga Mandi, Member Secretary of IQAC presented the action taken report on minutes of previous IQAC meeting held on 29.04.2019.

**Agenda 4: Ratification of AQAR 2017-2018 and 2018-2019**

After detailed discussion the Annual Quality Assurance Report (AQAR) reports submitted to NAAC for the academic year 2018-19, 2018-2019 was ratified by the members.

### **Agenda 5: Ratification for Good Governance Document**

The members approved the same

### **Agenda 6: Any other issues**

Chairperson presented about the NEP 2020 to be implemented for the academic year 2021-22 as per the directions of VTU. Also briefed about the preparations made to implement NEP 2020 in our Institution. Chairperson also briefed about adding sports, yoga and any fine arts courses as value added courses to develop the personality of students in NEP 2020.

During the review, members have suggested the following points.

- Dr. N C Shivaprakash, Mentor suggested to establish Academic Audit committee before submitting the NAAC SSR report for the current year. In view of this, Chairperson informed that IQAC has already established Academic and Administrative Audit (AAA) Committee as per NAAC directions and is functioning.
- Dr. Jayaramaiah, Dean R&D proposed the idea of constituting Industry advisory committee and also to have e-journal facility clustering all the papers published by faculty.
- Dr. B N Umesh, Treasurer, PVPWT informed to submit the list of faculty registered for NPTEL courses (last one year 2020-2021) on platform of Massive Open Online Course (MOOC), Study Webs of Active -Learning for Young Aspiring Minds (SWAYAM).
- Industry members Mr. Nataraj from LG Soft, insisted that the students are prepared for internship as industry does not spend time on resources on training the students unless they can deliver some task for the company interest. He also insisted that faculty need to be trained on industry needs in-terms of coding and industry development process.
- The other industry member Mr. Vikrant, Tila.com, drawn attention on two big gaps in outgoing students from engineering colleges and the industry expectations: such as lack of expressing their thoughts and

problem solving skills. He also suggested framing the curriculum such that the problem solving skills are given prime importance.

- Mr. Vikrant also insisted that rather pushing non-IT students trained on coding, they should be encouraged to focus on their core branch opportunities. The student interest and strength should be recognized and polished right from 3<sup>rd</sup> semester onwards.
- Mentor suggested to establish innovative lab in every department for Research & Development under Corporate Social responsibility (CSR) scheme by inviting industries.
- Sri. A R Krishnamurthy, Secretary informed to submit a report on placement details for the current year.
- The Alumni member Mr. Sharan Basappa suggested to use online mode of teaching to connect with alumni.
- All the deans of various portfolios presented their action plan for next 3 months.

Sri. A.R. Krishnamurthy, Secretary, PVPWT thanked the industry members Mr. Nataraj and Mr. Vikrant for their valuable suggestion and also thanked Mentor Dr. N. C. Shivaprakash for the suggestions given to improve the academic quality for the growth of the Institution.

The Member Secretary expressed his gratitude to the members for the suggestions given by them and concluded the meeting with vote of thanks to the chair.

*Dr. Mahalinga Mandi*

**Dr. Mahalinga Mandi**  
Member-Secretary  
Dean (P & D)

**Dr. Ambedkar Institute of Technology**  
Bengaluru-560 056

*Dr. M. Meenakshi*

**Dr. M. Meenakshi**  
Chairperson/Principal  
IQAC Chairman

**Dr. Ambedkar Institute of Technology**  
Bengaluru - 560 056.



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Bengaluru - 560 056.

### ACTION TAKEN REPORT ON THE MINUTES OF PREVIOUS IQAC MEETING HELD ON 18<sup>th</sup> SEPTEMBER 2021

Agenda	Suggestions	Action taken
<b>Agenda-1:</b>  <b>1. Information to the IQAC members.</b>	<p>The Dean P&amp;D and the Member Secretary of the IQAC informed about IQAC and constitution of new IQAC. He also thanked all the outgoing members of IQAC and their contributions in the development of the Institution. He briefed about the importance of NAAC accreditation, NBA accreditation and QS I-Gauge rating. The current status of NBA accreditation of various programmes in the institute is also informed to all the members.</p> <p>He also mentioned about the process and significance of QS I-Gauge rating and certification.</p>	<p>NBA SAR was uploaded to NBA portal within the due date i.e. 11-06-2022 for the following departments:</p> <ol style="list-style-type: none"><li>1.Information Science &amp; Engineering</li><li>2.Industrial Engineering &amp; Management</li><li>3.Electrical &amp; Electronics Engineering</li><li>4.Electronics &amp; Telecommunication Engineering</li><li>5. Electronics &amp; Communication Engineering</li><li>6. Electronics &amp; Instrumentation Engineering</li><li>7. Master of Computer Applications</li><li>8.M.Tech in Computer Science &amp; Engineering</li></ol> <p>Data for QS I-Gauge was also submitted on 20<sup>th</sup> May 2022 and awaiting for the result.</p>

<b>Agenda-2:</b> <b>Confirmation of Minutes of previous IQAC meeting held on 29.04.2019.</b>	The Members confirmed the same.	
<b>Agenda-3: Action taken report on the Minutes of previous IQAC Meeting held on 24-04-2019</b>	With the permission of Chairperson of IQAC, Dr. Mahalinga Mandi, Member Secretary of IQAC presented the action taken report on minutes of previous IQAC meeting held on 29.04.2019.	NOTED
<b>Agenda-4: Ratification of AQAR 2017-2018 and 2018-2019</b>	After detailed discussion the Annual Quality Assurance Report (AQAR) reports submitted to NAAC for the academic year 2018-19, 2018-2019 was ratified by the members.	NOTED
<b>Agenda-5: Ratification for Good Governance Document</b>	The members approved the same	
<b>Agenda 6: Any other issues</b>	Chairperson presented about the NEP 2020 to be implemented for the academic year 2021-22 as per the directions of VTU. Also briefed about the preparations made to implement NEP 2020 in our Institution. Chairperson also briefed about adding sports, yoga and any fine arts courses as value added courses to develop the personality of students in NEP 2020.	NEP Task Force is constituted at Dr.AIT & meetings are held to finalize the courses for 1 <sup>st</sup> year & 2 <sup>nd</sup> year UG programmes as per the requirement of NEP 2020. The details are enclosed in <b>Annexure – 1 (Page. No: 18 to 21 )</b>

During the review, members have suggested the following points.

<b>Suggestions</b>	<b>Action Taken</b>
Dr. N C Shivaprakash, Mentor suggested to establish Academic Audit committee before submitting the NAAC SSR report for the current year. In view of this, Chairperson informed that IQAC has already established Academic and Administrative Audit (AAA) Committee as per NAAC directions and is functioning.	Academic & Administrative Audit (AAA) by Internal experts & External experts was conducted on 3 <sup>rd</sup> & 4 <sup>th</sup> Feb, 2022 and 28-03-2022 respectively as per the suggestions given by the members of IQAC.
Dr. Jayaramaiah, Dean R&D proposed the idea of constituting Industry advisory committee and also to have e-journal facility clustering all the papers published by faculty.	Industry Advisory Board (IAB) is constituted by all the departments. Department wise list enclosed in <b>Annexure -2 (Page. No: 22 to 31 )</b>
Dr. B N Umesh, Treasurer, PVPWT informed to submit the list of faculty registered for NPTEL courses (last one year 2020-2021) on platform of Massive Open Online Course (MOOC), Study Webs of Active -Learning for Young Aspiring Minds (SWAYAM).	List of faculty members registered for NPTEL courses for the year 2020-21 is enclosed in <b>Annexure - 3 (Page. No: 32 to 35 )</b>
Industry members Mr. Nataraj from LG Soft, insisted that the students are prepared for internship as industry does not spend time on resources on training the students unless they can deliver some task for the company interest. He also insisted that faculty need to be trained	The faculty members are informed to undergo Industry internship during vacation and few faculty members attended industry internship. Dr. Shivaputra, Dr. Meenakshi. L R, Mrs. Thriveni, Mrs. Sajida Thabasum, Praveen K B, Mukundaswamy,

on industry needs in-terms of coding and industry development process.	Asharani, Praveena, Dr. Chandrashekar & Ankesh. B, have attended online Industry training on "Additive Manufacturing Technologies & its Applications" from 11-05-2022 to 24-05-2022 organised by National Institute of Electronics & Information Technology, Calicut.
The other industry member Mr. Vikrant, Tila.com, drawn attention on two big gaps in outgoing students from engineering colleges and the industry expectations: such as lack of expressing their thoughts and problem solving skills. He also suggested framing the curriculum such that the problem solving skills are given prime importance.	As per the suggestions by the member, problem solving skills are also included in the placement training.
Mr. Vikrant also insisted that rather pushing non-IT students trained on coding, they should be encouraged to focus on their core branch opportunities. The student interest and strength should be recognized and polished right from 3 <sup>rd</sup> semester onwards.	Core Companies are also invited for campus placements giving opportunity for Non-IT students. List of Core Companies (department specific) & other companies visited for campus placement is enclosed in <b>Annexure -4</b> (Page. No: 36 to )
Mentor suggested to establish innovative lab in every department for Research & Development under Corporate Social responsibility (CSR) scheme by inviting industries.	During the College Council (CC) meeting, Principal informed to all HODs to initiate setting up of Industry sponsored labs under CSR. C2TC (Campus To Technical Careers) program to CSE, Dr. AIT, Bengaluru is intended to assist college graduates from specific branches - to be employment ready for careers in technical (programming, software, IT related)

	roles in IT/ITES and allied organisations in the formal sector. This program is sponsored by Capgemini India, under their CSR initiative, and implemented by TechnoServe India. The detailed report is enclosed in <b>Annexure – 5 (Page. No: 37 to 40 )</b> .
Sri. A R Krishnamurthy, Secretary informed to submit a report on placement details for the current year.	Details enclosed in the <b>Annexure – 6 (Page. No: 41 to 45 )</b>
The Alumni member Mr. Sharan Basappa suggested to use online mode of teaching to connect with alumni.	Mr. Keerthi Prakash, Senior Software Engineer, Qlika India Pvt. Ltd and he is an Alumnus of ETE dept., graduated in 2009 has conducted webinar on “Cyber Attack surface reduction using Docker” for 3 <sup>rd</sup> & 4 <sup>th</sup> year students on 23-08-2021.  Mr. Kishore. J from JK Infotech & Alumnus of ECE dept., has conducted webinar on “Internship opportunities” on 8 <sup>th</sup> August 2021.
All the deans of various portfolios presented their action plan for next 3 months.	NOTED

## **NOTES ON AGENDA FOR THE IQAC QUARTERLY MEETING SCHEDULED TO BE HELD ON 25<sup>th</sup> JUNE 2022**

**Agenda-1:** Confirmation of the minutes of Previous IQAC Meeting held on 18-09-2021

1.1: Proceedings of the previous IQAC meeting held on 18-09-2021

1.2: Action taken report on the Minutes of IQAC Meeting held on 18-09-2021

**Agenda-2:** Information to IQAC members

- **VTU nominated Expert members on IQAC Peer Team**

VTU has nominated following members as Peer Team members of IQAC for Dr. AIT on 20-04-2022. The VTU letter is enclosed in **Annexure - 7** (Page. No: 46 )

Sl. #	Name of Member/Department	Institution/Place
1	Dr. Sriram G. Sanjeevi, Dept. of CSE	National Institute of Technology, Warangal
2	Dr. B. Venkatesa Perumal, Dept. of EEE	National Institute of Technology, Surathkal
3	Dr. Babu Vishwanathan, Dept. of ME	Indian Institute of Technology, Madras

- **NBA Accreditation:**

NBA SAR was uploaded to NBA portal within the due date i.e. 11-06-2022 for the following departments:

1. Information Science & Engineering (ISE)
2. Industrial Engineering & Management (IEM)
3. Electrical & Electronics Engineering (EEE)
4. Electronics & Telecommunication Engineering (ETE)
5. Electronics & Communication Engineering (ECE)
6. Electronics & Instrumentation Engineering (EIE)
7. Master of Computer Applications (MCA)

## 8. M.Tech in Computer Science & Engineering (CSE)

### • **Starting of new UG programmes:**

AICTE approval for starting of below mentioned new two UG programmes is applied after getting NOC from VTU.

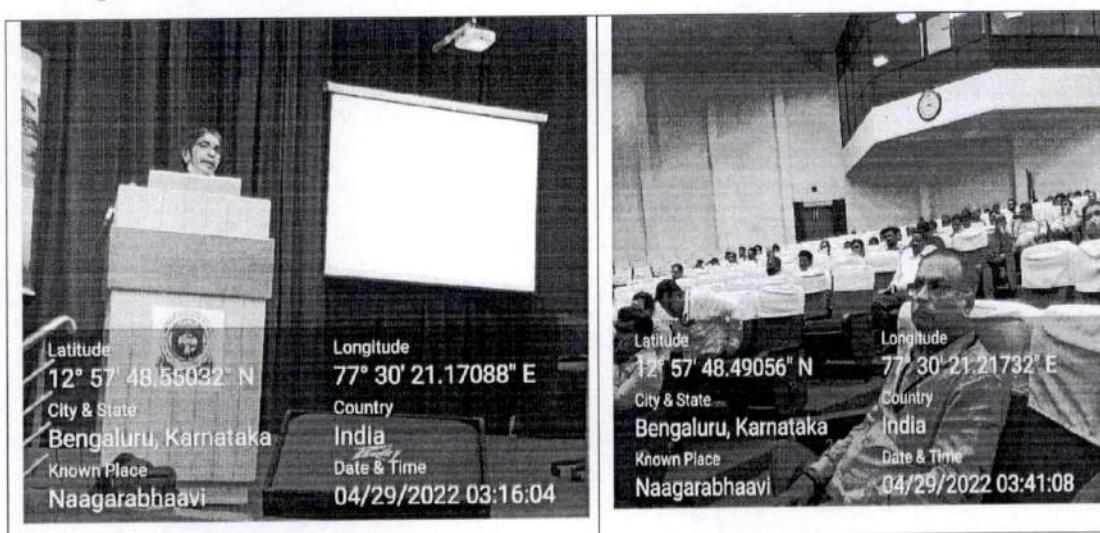
1. Computer Science & Business Systems (CSBS) and
2. Artificial Intelligence & Machine Learning (AI & ML)

AICTE online Scrutiny was held on 1<sup>st</sup> June 2022 and awaiting for approval letter.

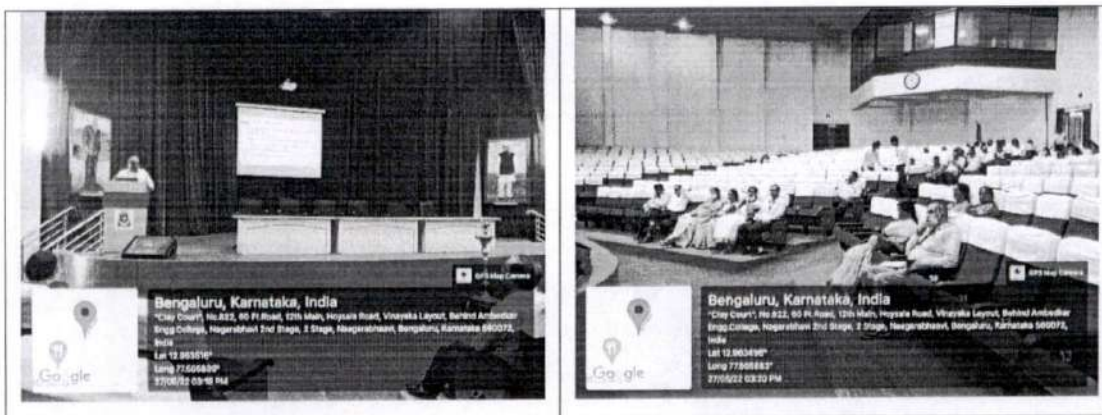
### • **IQAC Lecture Series**

It was resolved in College Council (CC) meeting to conduct IQAC lecturer series for all faculty members on last Friday of every month from 3:30 PM onwards.

IQAC lecture series – 1 was organized on 29-04-2022 on the topic **“Awareness Program on Quality Initiatives”** which was presented by Principal & Dean (P&D) as resource persons.



IQAC lecture series – 2 was organized on 27-05-2022 on the topic **“Examination & Assessments Methods – Quality Initiatives”** which was presented by Dean (Exam) as resource person.



IQAC lecture series – 3 was organized on 24-06-2022 on the topic “**Curriculum Framework & Academic Regulations**” which was presented by Dean (Academic) as resource person.

- **AICTE Approval Process for the Academic year 2022-23**

AICTE online Scrutiny was held on 1<sup>st</sup> June 2022 and awaiting for approval letter.

- **VTU Affiliation Process for the Academic year 2022-23**

Local Inquiry Committee (LIC) by VTU was started from 23-05-2022 for the Affiliation Process for the Academic year 2022-23 and awaiting for the visit.

- **Quality Improvement Program (QIP) Research Centers**

Applications are submitted to AICTE for approval of four Research Centers namely:

1. Civil Engineering
2. Mechanical Engineering
3. Electrical & Electronics Engineering
4. Computer Science & Engineering

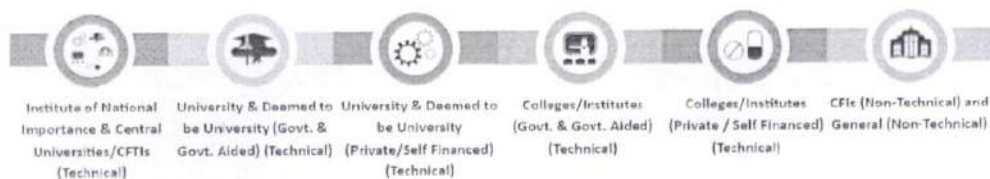
- **ARIIA 2021 Ranking Result**

Dr. AIT received Band Performer in Atal Ranking of Institutions on Innovation Achievements (ARIIA) 2021 ranking.



## ARIIA RANKING 2021

Home



### Colleges/Institutes (Govt. & Govt. Aided) (Technical)

Ranking Band-Excellent Band-Performer Band-Promising Band-Beginner

#### Band-Performer

Show 10 entries

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ARIC-8277	GOVERNMENT ENGINEERING COLLEGE THIRUUR
ARIC-115	GOVERNMENT ENGINEERING COLLEGE (B) KAT

### Activities conducted by IQAC

The following are the activities conducted by IQAC Office during Oct 2021 to June 2022:

Sl. #	Date	Activity
1	04-10-2021	Submission of VTU Annual Report 2020-21
2	30-10-2021	Academic Performance Index (API) data collection from faculty members
3	02-11-2021	Started NAAC Self Study Report (SSR) Preparation
4	02-12-2021	Orientation Program on API presented by Mentor
5	29-12-2021	Result of Atal Ranking of Institutions on Innovation Achievements (ARIIA)-2021 announced- Dr. AIT received Band Performer
6	30-12-2021	Annual Quality Assurance Report (AQAR)-2019-20 data submission
7	03-02-2022 to 04-02-2022	Conducted Internal Academic & Administrative Audit (AAA)
8	11-02-2022	National Institutional Ranking Framework (NIRF)-2022 data submitted
9	21-02-2022	All India Survey of Higher Education (AISHE) data submitted

10	14-03-2022	CSE (UG) & ME (UG) - NBA Compliance reports Submitted
11	28-03-2022	Academic & Administrative Audit (AAA) (External)
12	30-03-2022	VTU Affiliation process 2022-23 data uploaded
13	08-04-2022	NAAC Workshop by Dr. Nandini Prasad K. S to department NAAC coordinators
14	08-04-2022	Visit to Jyothi Institute of Technology
15	12-04-2022	NBA Pre-Qualifiers submitted
16	18-04-2022	Internal IQAC Meeting
17	23-04-2022	Internal IQAC Meetings
18	28-04-2022	Data submitted for AICTE Approval process 2022-23
19	29-04-2022	IQAC Lecture Series – I by Principal & Dean (P&D)
20	11-05-2022	Finalized draft Strategic Plan of Dr.AIT
21	20-05-2022	QS I-Guage data submitted
22	27-05-2022	IQAC Lecture Series – II by Dean (Exam)
23	30-05-2022	Draft proposals of Incentive Policies
24	10-05-2022 to 01-06-2022	NBA-SAR verification done by Dr. S. Vijaya, Dr. Chandrashekar, Dr. Honnanagoudar, Dr. M.N. Hegde, Dr.Gangadharshetty & Prof. Chandrashekar
25	15-05-2022 to 11-06-2022	Verification of NBA SAR of 8 programmes by Principal & Dean (P&D)
26	30-05-2022	Finalized & updated API format
27	01-06-2022	Online Scrutiny of AICTE Approval process 2022-23
28	9 <sup>th</sup> , 10 <sup>th</sup> & 11 <sup>th</sup> June 2022	Final submission of NBA SARs
29	23-06-2022	Conducted Internal IQAC Meeting
30	24-06-2022	IQAC Lecture Series – III by Dean (A)

- **Green & Environmental Audit**

Green & Environmental Audit was conducted from 4<sup>th</sup> to 6<sup>th</sup> May 2022 and the brief report is enclosed in **Annexure – 8 (Page. No: 47 to 93 )**

- **Energy Audit**

Energy Audit was conducted on 05-04-2022 to 11-04-2022 and the brief report is enclosed in **Annexure – 9 (Page. No: 94 to 101 )**

**Agenda - 3:** Approval for Incubation & Start-up Policy, IPR Policy and Consultancy Policy

The policies for Incubation & Start-up, IPR and Consultancy are enclosed in the **Annexure – 10 (Page. No: 102 to 149)**. For kind approval by the members.

**Agenda - 4:** Approval for R&D Policy

Policy for R&D is enclosed in the **Annexure – 11 (Page. No: 150 to 160)**. For kind approval by the members.

**Agenda - 5:** Ratification for AQAR 2019-20

- AQAR for the year 2019-20 was submitted through online. Report includes all the seven criteria as listed below:
  - Curricular Aspects
  - Teaching-learning & Evaluation
  - Research, Innovations & Extension
  - Infrastructure & Learning Resources
  - Student Support & Progression
  - Governance, Leadership & Management
  - Institutional Values & Best Practices

**Agenda - 6:** Action Plan for next six months

Sl. No	Month/Year	Activity
1	July 2022	AQAR-2020-21 data submission
2	August 2022	VTU Annual Report 2021-22 submission
3	August 2022	ARIIA-2022 data submission
4	August 2022	NAAC – SSR submission
5	August to Dec 2022	NBA visit
6	Every month 2022	Internal IQAC Meeting
7	Last Friday of every month	IQAC Lecture Series
8	June/July 2022	LIC visit by VTU
9	September 2022	IQAC quarterly meeting
10	November/December 2022	NAAC Peer Team visit (expected)
11	December 2022	IQAC quarterly meeting
12	December 2022	Governing Body Meeting

**Agenda - 7:** Any other issues

- Presentation by the Deans on the respective portfolio

-----**END**-----



# Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

Bengaluru - 560 056

## OFFICE OF THE IQAC/DVP

No. Dr.AIT/IQAC/357/2021-22

40-12-2021

### CIRCULAR

All the below mentioned members of Task Force for NEP 2020 are hereby informed to attend the meeting in the Principal's Chamber today at 9:45 AM positively.

Sl. No	Name	Designation	Role
01	Dr. M Meenakshi	Principal	Chairman
02	Dr. M V Vijayakumar	Vice - Principal	Member
03	Dr. K N Anuradha	Dean (Academic)	Member
04	Dr. C R Prashanth	Dean (Exam)	Member
05	Dr. G V Jayaramaiah	Dean (R&D)	Member
06	Dr. S. Gowrishankar	Dean (I-I-I)	Member
07	Dr. M. V. Mandi	Dean (P&D)	Member
08	Dr. Nandini Prasad	Dean (Foreign Affairs)	Member
09	Dr. R. Murali	Professor, Maths	Member
10	Sri.S.K.Jagadeesh	Professor, ME	Member
11	Dr. Aravind	Assit. Prof. ETE	Member
12	Smt. Sridevi	Assoc. Prof. EIE	Member

*Nandini V. Nandini*  
Dean (P&D) 10/12/21  
Dean (P & D)

Dr. Ambedkar Institute of Technology  
Bengaluru-560 056

To: All the members of Task Force for NEP 2020

*[Signature]*  
PRINCIPAL  
PRINCIPAL

Dr. Ambedkar Institute of Technology  
Bengaluru-560 056

- Copy to:** 1. Hon'ble Secretary, P.V.P.W.T-for kind information  
2. Hon'ble Treasurer, P.V.P.W.T-for kind information  
3. Mentor-for kind information

**Dr. Ambedkar Institute of Technology, Bangalore-56.**

Ref.No:Dr.AIT/PS/233 /2021-22

Date: 11.12.2021

Minutes of 1<sup>st</sup> meeting of Task Force for NEP 2020 (constituted on 13.10.2021) held on 10.12.2021 at 9.45 a.m in the Principal's Chamber.

**Members Present:**

Sl. No.	Name	Designation	Role
1.	Dr. Meenakshi M	Principal	Chairman
2.	Dr. M.V. Vijayakumar	Vice -Principal	Member
3.	Dr. K.N. Anuradha	Dean (A)	Member
4.	Dr.M.V.Mandi	Dean (P&D)	Member
5.	Dr.Prashanth C.R	Dean (E)	Member
6.	Dr.G.V.Jayaramaiah	Dean ( R&D)	Member
7.	Dr.Gowrishankar	Dean ( III)	Member
8.	Dr.Nandini Prasad K.S	Dean (FA)	Member
9.	Dr.Murali. R	Prof., Maths dept.	Member
10.	Sri. S.K.Jagadeesh	Asso. Prof., ME dept.	Member
11.	Dr. Aravinda.H.L	Asst.Prof.	Member
12.	Smt. Sridevi	Asso. Prof., ETE dept.	Member

At the outset, the Principal welcomed all the members for the meeting and discussed about NEP in detail and preparation of Institution Development Plan (IDP) as per NEP.

The following points were discussed by the Principal during the meeting:


- All the committee members were informed to read and understand the framework of NEP and be aware of the details in NEP – to prepare roadmap, objectives, outcomes and changes to be done in the curriculum, Pedagogy etc at our Institute.

- All the members of Task force are responsible for development of IDP and IDP must cover all aspects of NEP.
- Short term and long term plan under NEP is to be prepared. To begin with we should concentrate on short term plan.
- All the faculty should update themselves about the necessary skill sets and must be trained on teaching pedagogy with 8 modules at VTU, Muddenahalli, NITTTR or Osmania University etc.
- Students must carry out vocational training on local skill set.
- Institutions are broadly classified as Type -I, Type II and Type -III.
- Type-I Institutes offer only UG courses, Type-II offer both UG and PG courses along with research, Type -III are Deemed Universities which focuses only on research. Our institution may be considered as Type-II.
- To start the new courses, financial constraint has to be looked into.
- For implementation of above aspects, concerned Deans/members have to prepare the action plan. SWOC analysis is to be made in this regard in the next meeting.
- Vice-Principal was informed to put up a note to Hon'ble Secretary for proposal of Digital Studio setup as a part of online education and LMS for NEP-2020 so that Dr.AIT lecture series can be initiated.
- Regarding academic activities - Dean (A), Examination reforms - Dean (E), Multidisciplinary Research - Dean (R&D), Activities with Social impact - Dr.Murali, NSS officer, Industry Interaction - Dean (III), Global recognition - Dean (Foreign Affairs), Mechanical and allied branches - Prof. S.K.Jagadeesh, Electrical Sciences - Dr. Aravinda H.L and Prof Sridevi are informed to concentrate while

preparing IDP. Dr.Vijaya kumar, Vice-Principal to supervise all the above activities.

- Next meeting of Task Force for NEP 2020 will be conducted during next week and all members are informed to prepare SWOC analysis.

The meeting was concluded with a vote of thanks to the chair.

  
**Principal**  
**PRINCIPAL**  
Dr. Ambedkar Institute of Technology  
Bengaluru-560 056

**To** : Concerned Deans and members – for necessary action.

**Copy to:** 1. The Hon'ble Secretary - for kind information.  
2. Mentor – for information.



DR AMBEDKAR INSTITUTE OF TECHNOLOGY, BENGALURU-56

DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

Industry Advisory Board Members List

1. Abhinav Ashok Kalamdani, Director is Syneddyne Systems Private Limited
2. Arunkumar R K, Senior Consultant at Siemens Technology and Services Pvt.Ltd, Bengaluru
3. Mr. Venugopal Vinjay Automaton, Bangalore
4. Mahesh Chikkamath, Director - Semicon Engineering at Capgemini, Bengaluru
- ✓ 5. Kurian V Abrahman, Service Engg @ IPA Pvt. Ltd, Peenya Industrial Area, Bengaluru ✓
6. Rajesh M N, General Maneger, Jio platform Pvt. Ltd
7. Srikanth K S, Honey well Technology solutions Lab Pvt. Ltd, Bengaluru
8. Tejus P , Director , Loginware Pvt. Ltd, Bengaluru
9. Bhanupraksh, R Scientific Advisor Science4 u Analytics and Research Solutions Pvt. Ltd, Bengaluru
10. Dr.Kishore kumar , Systems Design Engineer at Philips Healthcare

*r. [Signature]* 21/06/2022

HOD, Department of EIE

**Professor & Head**  
**Department of Electronics &**  
**Instrumentation Engineering**  
**Dr. Ambedkar Institute of Technology**  
**Bangalore - 560 056.**

Dr. AIT/ETE/97/21-22, 14/6/22

ETE

**Dr. Ambedkar Institute of Technology**  
**Department of Electronics & Telecommunication Engineering**

**INDUSTRY ADVISORY BOARD**

Sl. No.	Name of the Industry Expert	Designation / Organization	Domain	Years of experience	Contact Number	e-mail id
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2	Mohan Jagannath	Sr. Principal Solutions Architect, RPS Consultancy Pvt. Ltd.	Cloud and Storage Management	28	9611126334	m_jagannath@yahoo.com
3	Shylaja Narahari	Delivery Partner, Persistent Systems Ltd., Bangalore	Information Technology	23	9900155175	shylaja.narahari@gmail.com

4	Mr Mahendra C,	Manager, MILCOM, Bharat Electronics Limited ,Banga lore	Product Engineering	16	9900115472	mahendrac@bel.co.in
5	Pavan Iddalagi	Technical Expert	Hewlett Packard Enterprise	13	9731771771	pavan.iddalagi@hpe.com
6	Narasimha Kaushik N	Lead Engineer, Vision Compute	Target Corporation	12	9916395280	narasimha.kaushik.n@gmail.com

**HOD O.D.**

Dept. of Telecommunication Engg.  
Dr. Ambedkar Institute of Technology,  
Bangalore-560 056

**Industry Members for Advisory Board**

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9. Saurabh Singh

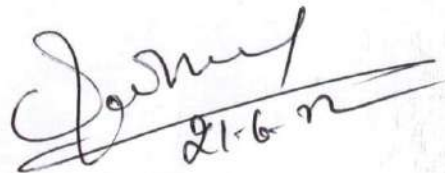
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**HOD**

Dept. of Electronics and Communication Engr.  
Dr. Ambedkar Institute of Technology  
Bengaluru - 560056

## Department of Industrial Engineering and Management

## Dr.Ambedkar Institute of Technology

Date: 4/4/2022

Submitted to the Dean (IQAC)-Dr.AIT

List of Industrial Advisory Board Members.

Sl.No.	Company Name and Address
1	<b>Vinodkumar .S</b> Managing Director Value smart Bangalore Email: <a href="mailto:vinod@valuesmart.co.in">vinod@valuesmart.co.in</a> Ph.: No: 9880387572
2	<b>Preetham Hombal</b> Sr. Analyst Capgemini Ltd. Bangalore Email: <a href="mailto:hombal@capgemini.com">hombal@capgemini.com</a> Ph. No:9538388993
3	<b>Chandrasekhar Patil.</b> Chief Manager GE Renewable Energy system Ltd. Bangalore. Email: <a href="mailto:cbp@lmwindpower.com">cbp@lmwindpower.com</a> Ph. No: 9845597008
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 Near Jnanabharathi Campus  
 BDA Outer Ring Road  
 Mallathahalli, Bangalore-560 056

**Dr. Ambedkar Institute of Technology, Bengaluru**  
Department of Master of Business Administration


Date: 26.03.2022

**Industry Members for Industry Advisory Board**

Sl. No.	Industry Members
1.	<p><b>Byralinge Gowda N</b> Qualification : MBA Designation : Area Sales Manager Company : Delta Nutritives pvt Ltd, 81, 14th B Main Road, Bovipalya, Nagapura, Bengaluru, Karnataka Pin Code: 560086 Specialization: Marketing Experience 14 Years Email : blgowda.2006@gmail.com Mob. No. 9916440580</p>
2.	<p><b>Pranesh Joshi</b> Qualification: MBA Designation- TSM Company: INDOASIAN Address: 787, 1st floor, "Skyline Vista", 15th Cross, ring road, JP nagar 1st Phase, Bangalore - 560078 Specialization: Marketing Experience : 7 plus years Email ID: pran.joshi7@gmail.com Mob. No.: 9739465644</p>
3.	<p><b>Ram K Navaratna</b> Qualification: MA (Social Work) Dip Law Dip. PMIR, Dlp TD Designation: Chief Executive. Company: HR Resonance Address: 35/311 Bakeman bakery upstairs Near Lakshmi Venkateswar Kalyan Mantap Triveni Road Yeshwantpur Bangalore 560 022 Specialization: HR, Labour Law specialisation Experience: 28 Years Email ID: hrresonance@gmail.com Mob. No.: 9448274030</p>
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6.	<p><b>Sharath G Kashyap</b>  Qualification: MBA  Designation : Group Manager- HR  Company: L&amp;T Technology Services Ltd  Address: L3 Building, Manyata Embassy Business Park, Nagawara Hobli, Ring Road, Bengaluru 560045  Specialization: HR Business Partner  Experience: 15 Years  Email ID: sharathgkashyap@gmail.com  Mobile no.: 98867 95266</p>
7.	<p><b>Nagaraj N Suragihalli</b>  Qualification: MBA finance  Designation : Senior Vice President  Company: Yes Bank Ltd  Address: Ground Floor, Prestige Obelisk, Municipal No. 3, Kasturba Road, Bangalore - 560001  Specialization: Financial Markets  Experience: 14 years  Email ID: Nsuragihalli@gmail.com  Mobile no.: 9900029280</p>
8.	<p><b>Abubakar Siddeeqh</b>  Qualification : MBA  Designation: Sr. Vice President – Quantitative Services  Company: Acuity knowledge Partners (Ex-Moody's Analytics)  Address: MA Knowledge Services, Embassy Tech Village, Building 2A, Phase 2, 3<sup>rd</sup> Floor, Outer Ring Road, Bangalore – 560087  Specialisation: Financial Derivatives  Experience : 16 years  Email ID: abubakar.siddeeqh@acuitykp.com  Mobile no.: 9986661973</p>
9.	<p><b>Praveen Kumar HG</b>  Qualification: MBA  Designation: Senior sales and marketing Manager  Company: Infotrack Telematics pvt ltd  Address: No.11, 2nd Floor, Block-C, Palace Rd, Bengaluru, Karnataka-560052  Specialisation: Marketing Management  Experience 9 years  Email ID: praveen@infotracktelematics.com</p>


	Mobile no.: 9945939987
10.	<b>Mohammed Tanzeem</b> Qualification: MBA Designation: Senior Store Manager Company: Titan Company Limited Address: Titan World, No 37 Everjoy Building Commercial Street Bangalore 560001 Specialisation: Marketing management Experience: 11 years Email ID: tanzi.mba@gmail.com Mobile no.: 9738411601
11.	<b>Raghu G S</b> Qualification: BE (E&C) Designation: Proprietor Company: Chira Information Technologies - IT Solutions Address: #12423, 1st Main Rd, SBI Staff Colony, Hoshalli Extension, Stage 1, Vijayanagar, Bengaluru, Karnataka 560040 Director: INTENT DESIGNS - Innovation. Director: Hosagen Technologies - Application and software development Specialization: Information Electronics Experience: 25 Years Email ID: chiraraghu@gmail.com Mobile no.: 9845564432
12.	<b>Gosakan Aravamudan</b> Qualification: B-Tech IIT Madras, MBA OSU, USA Designation : CEO and Managing Director Company: Z STRAND (Unit of Unicita Consulting Pvt. Ltd.) Address: 110, KIADB II phase Industrial Estate, Near Shyanamangala Village, Ramnagara Taluk, Bangalore Mysore Road, Bidadi – 562109, Karnataka, India Specialization: Product Design, Marketing Management, Patent Filing Experience: 22 Years Email ID: gosakan@zstrand.com Mobile no.: 9845566423

  
21.6.22  
Professor and Head

Dept. of Master of Business Administration  
Dr. Ambedkar Institute of Technology  
Bangalore-560 056

**Industry Advisory Board Members – Dept of Civil Engg, Dr. AIT, Bangalore.**

1. Dr. Ramachandra V, Technical Advisor, UltraTech Cement. Bangalore.
2. Dr Ajith Sabnis, Principal Consultant, ASP-SDI, Sustainability auditing Consultants, Bangalore.
3. B M Prakash, Senior Environmental Officer, Karnataka State Pollution Control Board (KSPCB), Mysore zone.
4. Srikanth Channal, Chairman and Structural Consultant, ACC Bangalore division, Bangalor.
5. Pritham Ashutosh, Director, EDALL system, Bangalore.

  
20/06/22  
Professor and Head  
Department of civil Engineering,  
Sri Kar Institute of Technology,  
Bangalore - 560 006.

**Dr. Ambedkar Institute of Technology**  
**NPTEL Courses during August 2021**

Sl. No.	Name	No. of Subjects	Course Name	Department	Certificate Type
1	Dr. C Nanjunda Swamy	1	Plastic Waste Management	CV	Elite+Silver
2	Dr. S D Venkatarajamohan	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Successfully completed
3	Asha Rani K P	2	Software Testing		Elite+Silver
			NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
4	Asha K N	2	Software Testing		Elite+Silver
			NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
5	Harish G	2	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite+Silver
			Software Testing		Elite+Silver
6	Smitha Shekar B	2	Software Testing		Elite
			NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite+Silver
7	Veena Potdar	1	Software Testing		Elite+Silver
8	Jayalakshmi k	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
9	SHANMUGA PRIYA R	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Successfully completed
10	Mamatha S K	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
11	Madhu B	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite+Silver
12	Tejaswini K	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
13	Dr Siddaraju	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Successfully completed
14	SHANMUGA PRIYA R	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Successfully completed
15	Praveena M V	2	NBA Accreditation and Teaching-Learning in Engineering (NATE)		Elite
			Introduction to Industry 4.0 and Industrial Internet of Things		Elite+Silver
16	Madhu B		NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
17	Asha	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
18	Lavanya Santhosh	2	NBA accreditation and teaching learning in engineering		Elite
			NBA ACCREDITATION TEACHING AND LEARNING IN ENGG		Elite
19	Vinutha M S	2	NBA Accreditation and Teaching Learning in Engineering		Elite+Silver
			Software Testing		Elite+Silver
20	Neetha Natesh	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
21	Pushpalatha	2	Introduction to Industry 4.0 and Industrial Internet of Things		Elite
			NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
22	VINUTHA H	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Successfully completed
23	Dr Shilpa Biradar	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
24	Vanishree Abhay	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
25	Dr. Nandini Prasad K S	1	Big Data Computing		Elite
26	Vidyanani H J	1	Introduction to Industry 4.0 and Industrial Internet of Things		Elite+Silver
27	Veena Potdar	2	Software Testing		Elite
			NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
28	Vijayalaxmi R Patil	2	Introduction to Industry 4.0 and Industrial Internet of Things		Elite
			NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite+Silver
29	Malathi P	2	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
			Introduction to Industry 4.0 and Industrial Internet of Things		Elite
30	Dayananda TB	1	Network Analysis		Successfully completed
31	Pankaja H G	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
32	Jyoti Koujalagi	1	Patent Drafting for Beginners		Successfully completed
33	Arpitharaju	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite+Silver
34	Dayananda TB	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Successfully completed
35	Nalini S	2	NBA Accreditation and teaching learning in engineering		Elite
			Renewable energy engineering, solar, wind & Biomass energy systems		Elite
36	Harini Vaikund	2	Renewable Energy Engineering : Solar, Wind and Energy Systems		Elite
			NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite+Gold
37	GOVINDARAJU H V	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
38	TRIVENI	1	Electronic Waste Management - Issues and Challenges		Successfully completed
39	Sajidha Thabassum B	1	Electronic Waste Management - Issues and Challenges		Elite+Silver
40	Dr Shilpa K C	1	Fundamentals Of Electronic Materials and Devices		Elite+Silver
41	Ripal Patel	1	Computer Vision and Image Processing - Fundamentals and Applications		Elite
42	Dr Tanuja Patgar	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
43	ANAND H D	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
44	Dr Rangaswamy Y	1	Principles of Signals and Systems		Successfully completed
45	Shwetha N	2	NBA Accreditation in Teaching and Learning		Elite
			Signals and Systems		Elite+Silver
46	Vidyashree C	2	Control engineering		Successfully completed
			Digital System Design		Elite+Silver
47	Siddesha K	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
48	Dr Shilpa K C	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
49	Spoorthi P A	1	Digital System Design		Elite
50	Mala Sinnoor	1	Digital System Design		Successfully completed
51	PRASHANTH C R	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite

52	Dr Rangaswamy Y	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
53	Shwetha N	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
54	Dr Rangaswamy Y	1	Computer Vision and Image Processing - Fundamentals and Applications		Successfully completed
55	Dr. Mahalinga V Mandi	2	NBA Accreditation and Teaching - Learning in Engineering		Elite
			Cryptography & Network Security		Successfully completed
56	Mohankumar V.	1	System Design through VERILOG		Elite+Silver
57	kavya shivashankar	1	Mechatronics		Elite
58	Dr Manjunatha A P	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)	ML	Successfully completed
59	Nayana R Shenoy	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite+Gold
60	Dr MAHESHA C R	1	Theory and Practice of Non Destructive Testing		Successfully completed
61	Sarvamangala S P	1	Inspection and Quality Control in Manufacturing		Successfully completed
62	Dr Rajeshwari P	2	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Successfully completed
			Inspection and Quality Control in Manufacturing		Elite
63	Sarvamangala S P	4	Inspection and Quality Control in Manufacturing	IEI	Successfully completed
			Gender Justice and Workplace Security		Elite+Silver
			Ethics in Engineering Practice		Successfully completed
			NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
64	Dr MAHESHA C R	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite+Silver
65	Rajesh K	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Successfully completed
66	Suprabha R	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite+Silver
67	Pavithra A	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Successfully completed
68	Prabhavati G Angadi	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Successfully completed
69	Dr Nagarathnamma H	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Successfully completed
70	Bhavya S	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite+Silver
71	Savitha Y L	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)	MATHS	Elite
72	Dr Jayalakshmi M	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
73	Dr Padma M M	2	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
			Advanced Graph Theory		Elite+gold
74	Dr Sunitha Kulkarni	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
75	PREETHI K	2	Processing of Polymers and Polymer Composites		Elite+Silver
			Fundamental of Welding Science and Technology		Successfully completed
76	Dr Shivappa H A	1	Processing of Polymers and Polymer Composites		Elite
77	AMITH KUMAR S N	1	Theory and Practice of Non Destructive Testing		Successfully completed
78	Dr Gangadhar N	1	Theory and Practice of Non Destructive Testing		Elite+Silver
79	Dr Bhanupratap R	2	Materials Science and Engineering		Successfully completed
			NBA Accreditation and Teaching - Learning in Engineering (NATE)		Successfully completed
80	M chandrashekar	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
			Ethics in Engineering Practice		Elite
81	RAJESH CHANDRA C	3	NBA Accreditation and Teaching - Learning in Engineering (NATE)	ME	Elite
			Theory and Practice of Non Destructive Testing		Successfully completed
82	TEJESH S	2	Manufacturing Process Technology I & II		Elite
			NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
83	Dr Shivappa H A	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Successfully completed
84	BYREGOWDA K C	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
85	M RATHIKA	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite+Silver
86	DrSATHISH S	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
87	Dr Gangadhara Shetty B	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
88	Doddanna. K	1	NBA Accreditation and teaching learning in engineering(NATE)		Elite
89	Dr NATARAJA M M	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Successfully completed
90	Dr. Prashanth C R	1	NBA Accreditation and Teaching-Learning in Engineering	ETE	Elite
91	Nirmala Bai L	1	The joy of computing using python	EIE	Elite
92	Dr Leela M H	2	Marketing Research and Analysis-II		Successfully completed
			NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
93	Arundathi SV	2	Emotional Intelligence		Elite
			NBA Accreditation and Teaching - Learning in Engineering (NATE)		Successfully completed
94	S Kavitha	1	Marketing Management - II		Elite+Silver
95	Dr SHAILAJA M L	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Successfully completed
96	VIDYA R	2	Financial Statement Analysis and Reporting	MBA	Elite
			NBA Accreditation and Teaching - Learning in Engineering (NATE)		Successfully completed
97	Dr S BASKARAN	2	Financial Institutions and Markets		Successfully completed
			NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite
98	Dr SHAILAJA M L	2	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Successfully completed
			Financial Statement Analysis and Reporting		Elite
99	Rajeshwari R R	1	NBA Accreditation and Teaching - Learning in Engineering (NATE)		Elite

Total Faculty -99	Elite - 63
Total Subject -130	Elite Silver- 27
	Elite Gold- 3
	Successfully Completed - 37

*Dr. Arundathi V. Nand*

Dean (P&D)

Dean (P & D)

Dr. Ambedkar Institute of Technology  
Bengaluru-560 056

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*Dr. Arundathi V. Nand*  
Principal

PRINCIPAL

Dr. Ambedkar Institute of Technology  
Bengaluru-560 056

Dr. Ambedkar Institute of Technology					
NPTEL Courses during September 2021					
Sl.No	Name	No. of Subjects	Course Name	Department	Certificate Type
1	Sujay S N	1	System Design Through VERILOG-Online	ECE	Elite+gold
2	Mohankumar V	1	System Design Through VERILOG-Online		Elite+Silver
3	C. Nanjunda Swamy	1	Sustainable Engineering Concepts and Life Cycle Analysis-Online	CV	Elite

Total Faculty -3	Elite - 1
Total Subject -3	Elite Silver- 1
	Elite Gold- 1

*Nataliya V. Nand*  
Dean (P&D)

Dean (P & D)

Dr. Ambedkar Institute of Technology  
Bengaluru-560 056

*Principal*  
Principal

PRINCIPAL

Dr. Ambedkar Institute of Technology  
Bengaluru-560 056

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# Dr. Ambedkar Institute of Technology

## NPTEL Courses during October 2021

Sl.No	Name	No. of Subjects	Course Name	Department	Certificate Type
1	Nirmala Bai L	1	The Joy of Computing using Python - online	EI	Elite
2	MARY BHAGYA JYOTHI J	2	Reinforced Concrete Road Bridges - online	CV	Elite+Silver
			Design of steel structures - online		Successfully completed
3	Suprabha R	1	Ethics in Engineering Practice - online	IEM	Elite+Silver
0	Sarvamangala S P	2	Gender justice and workplace security - online		Elite+Silver
			Ethics in Engineering Practice - online		Elite
5	Dr MAHESHA C R	1	Ethics in Engineering Practice - online		Elite
6	Vidyarani H J	1	Introduction to Industry 4.0 and Industrial Internet of Things - online	ML	Elite
7	Nayana R Shenoy	1	Software Testing - online	ML	Elite+gold
8	RAJESH CHANDRA C	1	Ethics in Engineering Practice - online	ME	Elite
9	Sowmya C L	1	Problem solving through Programming In C - online	EI	Elite
10	Dr Jayalakshmi M	1	Engineering Mathematics I - online	Maths	Elite+Silver
11	S Kavitha	1	Managing Services - online	MBA	Elite+Silver
12	Dr S BASKARAN	1	Project management for managers - online	MBA	Elite

Total Faculty -12	Elite - 7
Total Subject -14	Elite Silver- 5
	Elite Gold- 1
	Successfully Completed - 1

*Narasimhan Nand*  
Dean (P&D)

**Dean (P & D)**

**Dr. Ambedkar Institute of Technology  
Bengaluru-560 056**

*D. S. B. 1*  
Principal

**PRINCIPAL**

**Dr. Ambedkar Institute of Technology  
Bengaluru-560 056**

**Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY**  
CAREER GUIDANCE & PLACEMENT CELL

**List of Companies Visited Campus in Last 3 Years**

Service Based	Product Based	Manufacturing	Retail Companies	Core Companies (Dept Specific)	Startup Companies	Edu Tech Companies
TCS	Maple Labs	Wistron	Phone Pe	Lekha wireless	Consleague	BYJU's
Accenture	Subex	JSW	Target Technologies	Continental	People XCD	Career Labs
Capgemini	Hitachi Vantara	IBM	Amazon	True Chip Solutions	Aceis Global	Jaro Education
Birlasoft	Adobe Systems	Air Mech Engineers	Zopsmart	Panacea Healthcare	Global Soft	Upgrade (Relevel)
Infosys	Nokia	Axiscades		Dover India	Comviva	SimpliLearn
Wipro	Hashedin Technologies	Zensar Technologies		CSGI Pvt Ltd.	Grey matter Solutions	
NTT Data	Betsol			Scheinder Electric	Technologies	
Mindtree	Valtech India			Toyota Kirloskar	Neosoft Technologies	
Hexaware	PWC			Stovekraft	Covalense Digital	
CGI	Nous Infosystems			Sasken Technologies	Bayrons	
HCL	ITC Infotech			Centum Electronics		
HP	Robert Bosch			Trinity Electricals		
Mphasis	Harman Connected					

*MR. [Signature]*  
TRAINING AND PLACEMENT OFFICER  
Dr. Ambedkar Institute of Technology  
Bengaluru - 560 056.

## Report on TechnoServe's C2TC Training and Placement activities at Dr.AIT

### C2TC (Campus To Technical Careers) program to CSE, Dr. AIT, Bengaluru

This program is intended to assist college graduates from specific branches - to be employment ready for careers in technical (programming, software, IT related) roles in IT/ITES and allied organisations in the formal sector. This program is sponsored by Capgemini India, under their CSR initiative, and implemented by TechnoServe India.

**Introducing**  
**C2TC Program**  
**(Campus to Technical Careers)**

for the  
**2021 & 2022 graduating students**  
**of**



ಡಾ|| ಅಂಬೇಡ್ಕರ್ ತಾಂತ್ರಿಕ ಮಹಾವಿದ್ಯಾಲಯ  
**Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY**  
Outer Ring Road, Malathahalli, Bengaluru-560 056, Karnataka, India



**TechnoServe**  
Business Solutions to Poverty

Program Coordinated by:  
**Department of CSE**



**Capgemini**  
CSR Initiative

Below are the activities and training programs conducted by Technoserve to eligible students of Dr.AIT under Capgemini's CSR activities:

#### 1. Training on Java EE course and placement for 2021 pass out students

We kicked off the Training and placement activities under CSR by Technoserve introducing the Campus to Technical Career (C2TC) program through Capgemini's CSR for 2021 graduating CSE students of Dr.AIT, by catering a 60 hours softskills and 340 hours JavaEE course (totally 400 hours of training). This CSR activity was introduced to train and provide placement opportunity for Below poverty line unplaced students (whose family income is less than Rs.3,00,00 PA), who cannot afford such a training.

When registrations were floated around 80 students registered and only 56 of them were eligible for this training. Mr. Vikas B.O conducted an online orientation session for the above training session on 28<sup>th</sup> May 2021, Friday at 5.00 pm using google meet bearing the meeting link: [meet.google.com/mqw-hsbs-wbb](https://meet.google.com/mqw-hsbs-wbb).

In this Mr. Vikas briefed all the eligible and selected students about the Java EE training process and placement opportunities provided thereby. And the classes started for this course from 16<sup>th</sup> June 2021 in online mode due to COVID pandemic.

After the completion of the training, Capgemini the sponsor partner for this program interviewed all the 27 eligible and unplaced students, who have completed the 7<sup>th</sup> semester without any backlogs. Table 1 provides the details of students who got placed to various companies through Technoserve.

Table 1: 2021 pass out CSE students list who got placed through Technoserve.

Unique ID	Name of Student	Contact No.	Mail id	Batch	Placed Status	Stream	Institute	Year of passing	Company Name
CAP204300	Abhishek A	9902676042	<a href="mailto:abhishek.a.walkar.8@gmail.com">abhishek.a.walkar.8@gmail.com</a>	B25	Placed	Computer Science and Engineering (CSE)	Dr. Ambedkar Institute of Technology	2021	Capgemini
CAP204309	Ganapathi S	8618584179	<a href="mailto:ganapathi.21.gh@gmail.com">ganapathi.21.gh@gmail.com</a>	B25	Placed	Computer Science and Engineering (CSE)	Dr. Ambedkar Institute of Technology	2021	Capgemini
CAP204318	Meghna	9035178747	<a href="mailto:meghnamadhu98@gmail.com">meghnamadhu98@gmail.com</a>	B25	Placed	Computer Science and Engineering (CSE)	Dr. Ambedkar Institute of Technology	2021	IBM/Capgemini
CAP204323	Naveen Sagar	8296911051	<a href="mailto:naveensagar2905@gmail.com">naveensagar2905@gmail.com</a>	B25	Placed	Computer Science and Engineering (CSE)	Dr. Ambedkar Institute of Technology	2021	Infosys
CAP204324	Nikhita	9113252207	<a href="mailto:nikhitakalburgikar@gmail.com">nikhitakalburgikar@gmail.com</a>	B25	Placed	Computer Science and Engineering (CSE)	Dr. Ambedkar Institute of Technology	2021	IBM
CAP204335	Sangram	9663609070	<a href="mailto:sangrambivadar1432@gmail.com">sangrambivadar1432@gmail.com</a>	B25	Placed	Computer Science and Engineering (CSE)	Dr. Ambedkar Institute of Technology	2021	Capgemini
CAP204336	Shanmukha Timmappa Naik	7899995945	<a href="mailto:sandeepnaik043@gmail.com">sandeepnaik043@gmail.com</a>	B25	Placed	Computer Science and Engineering (CSE)	Dr. Ambedkar Institute of Technology	2021	Capgemini
CAP204340	Suvarna Madev Gouda	7829091259	<a href="mailto:suvarnagouda84@gmail.com">suvarnagouda84@gmail.com</a>	B25	Placed	Computer Science and Engineering (CSE)	Dr. Ambedkar Institute of Technology	2021	Capgemini

## 2. MOU between Dept. of Computer Science & Engineering and Technoserve India Foundation

To validate and further strengthen the ongoing training and placement activities by Technoserve implementing Capgemini's CSR initiative, we Department of CSE and Technoserve India Foundation (TNS IF) signed a Memorandum of Understanding (MOU) on 8<sup>th</sup> October 2021 for three consecutive years until 2024. MOU signed discussed about

providing training and placement opportunities for the below poverty line students (Family income now less than Rs.5,00,000 pa).

### **3. Training via Cloud Infrastructure Services, an Industry sponsored Elective**

As per the MOU between CSE, Dr.AIT and Technoserve, we introduced The one of a kind Industry sponsored 3 credit course, Cloud Infrastructure Services as Professional elective for 7th semester (ODD semester, 2021) 2022 pass out students. The BPL students who are availing this course must complete this course by taking up SEE at the end of the semester to be eligible for the interviews allotted by Technoserve for various organizations. Around 47 students registered for this course and 26 of them were found to be eligible after initial screening conducted by Technoserve.

There was an orientation session conducted for this Technoserve CIS Industry Sponsored elective on 26th of October 2021 between 9.45 to 10.30 am in online mode using below Google meet link: [meet.google.com/djbvsec-xyd](https://meet.google.com/djbvsec-xyd).

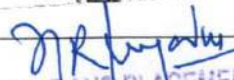
In the session Mr. Vikas gave a brief introduction to Technoserve's Industry sponsored elective, Cloud Infrastructure Services bearing the course code 18CS735 (CIS) offered to Dr.AIT which is a CSR activity by CapGemini aiming the student group whose parents' income fall under Rs.5,00,000/- p.a. Mr.Vikas also briefed on the different modules and their delivery mode, i.e. the blended mode they are following. The details are tabulated below. Table 2 provides the brief curriculum of CIS and its delivery mode.

Table 2: Cloud Infrastructure Services curriculum and its delivery modes

<b>CIS Modules</b>	<b>Delivery mode</b>
Module 1- Windows/Linux	Virtual / Online
Module 2 – Storage and backup	Virtual / Online
Module 3 – Vmware administration	Offline / Labs
Module 4 – Citrix Administration	Offline / Labs
Module 5 – SQL/Oracle DBA, Network administration	Online + Offline

This course was delivered by the trainer Mr.Vikas B.O from Technoserve for the entire semester in online mode, in par with Dr.AIT's calendar of events that is shared by us. All the CIE question papers were provided by Technoserve and the answer scripts were evaluated the department faculty as per the scheme provided by them. Students have completed their course and are waiting for their interviews through Technoserve.

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY					
CAREER GUIDANCE & PLACEMENT CELL					
BRANCHWISE PLACED STUDENTS OFFERED DATA OF CURRENT ACADEMIC YEAR					
SL.No	Department	Academic Year	Academic Year	Academic Year	Academic Year
		2021-22	2020-21	2019-20	2018-19
1	Computer Science	181	198	159	131
2	Information Science	54	52	40	49
3	Electronics & Communication	142	124	101	120
4	Telecommunication	40	26	22	21
5	Electronics & Instrumentation	30	9	12	13
6	Electrical & Electronics	28	18	19	14
7	Industrial Engineering & Management	11	2	6	16
8	Medical Electronics	8	3	8	6
9	Civil	10	2	0	4
10	Mechanical	35	7	27	39
11	MCA	10	0	0	8
12	M.Tech	1	3	4	1
Total Number of Offers received by Students		550	444	398	422

  
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 Bengaluru - 560 056

**Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY**  
**CAREER GUIDANCE & PLACEMENT CELL**

Consolidated report of Placement & Higher Studies

Year	Eligible Students	On Campus Placed Details		Off Campus Placed students	Higher Studies	Entrepreneurship	Overall Placed Percentage
		No. of Companies attended by Students	No. of students offered				
2021-22	891	61	550	—	—	—	61.72%
2020-21	863	45	444	15	3	—	53.53%
2019-20	850	46	398	10	5	1	48.70%
2018-19	860	56	422	31	9	—	53.72%

  
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## CAMPUS PLACEMENT DETAILS OF 2021-22 BATCH

### LIST OF COMPANIES ATTENDED BY STUDENTS

SL.No	Name of the Company	Job Position	Department	Date of visit	Cost To company	Number of students placed
1	NOKIA	Software Engineer Intern	M.Tech (CSE, ISE, ECE, TCE, EEE)	24-03-21	4.2 LPA	1
2	Accolite	Software Development Engineer	B.E (CSE, ISE, ECE, TCE, EIE, EEE, ML), MCA, M.Tech	23-08-21	5 LPA	2
3	Tata Consultancy Services (Digital)	Software Developer	BE (All departments)	23-08-21	7.5 LPA	14
4	Capgemini	Junior Analyst	B.E (CSE, ISE, ECE, TCE, EIE, EEE), MCA	29/8/2021 & 23/9/2021	4 LPA	52
5	Capgemini	Senior Analyst	B.E (CSE, ISE, ECE, TCE, EIE, EEE), MCA	29/8/2021 & 23/9/2021	7.5 LPA	3
6	Maple Labs	Associate Software Engineer	CSE, ISE, M.Tech (CSE, ISE), MCA	01-09-21	5.5 LPA	6
7	Hashedin Technologies	Software Engineer	BE (CSE, ISE), MCA & M.Tech	16-09-21	8 LPA	4
8	Accenture	Associate Software Engineer	BE ( All departments), MCA, M.Tech	12-10-21	4.5 LPA	66
9	Accenture	Advance Associate SW Engineer	BE ( All departments), MCA, M.Tech	12-10-21	6.5 LPA	8
10	Cognizant	GenC Next	BE ( All departments), MCA, M.Tech	14-08-21	7 LPA	1
11	Cognizant	GenC Elevate	BE ( All departments), MCA, M.Tech	11-09-21 & 20-09-2021	4.25 LPA	26
12	Cognizant	GenC	BE ( All departments), MCA, M.Tech	04-09-21 & 13 -09-2021	4 LPA	123
13	Tata Consultancy Services (Ninja)	IT Developer	BE (All departments), MCA, M.Tech	01-10-21	3.36 LPA	14
14	Consleague Consulting Ltd	Junior Associate	BE (CSE, ISE), MCA	04-10-21	4 LPA	1
15	Acies Global	Trainee- Digital Analyst	BE (CSE, ISE), MCA	05-10-21	3.75 LPA	2
16	Wipro	Graduate Engineer Trainee	BE ( All departments), MCA, M.Tech	13-10-21	3.5 LPA	82

SL.No	Name of the Company	Job Position	Department	Date of visit	Cost To company	Number of students placed
17	Betsol	Associate Software Engineer	BE (CSE, ISE), MCA	18-10-21	4 - 6 LPA	5
18	Valtech India	Associate Software Developer	BE (CSE, ISE)	21-10-21	5 LPA	31
19	COMVIVA (Tech Mahindra Company)	Technical Engineer	B.E (CSE, ISE, ECE, EEE, TCE, EIE)	28-10-21	3.75 LPA	19
20	PhonePe	Site Reliability Engineer (SRE)	BE (All departments)	09-11-21	14 LPA	10
21	Zensar Technologies	Software Developer	B.E (CSE, ISE, ECE, EEE, TCE)	11-11-21	4 LPA	13
22	Hitachi Vantara	Associate Software Engineer	BE (CSE, ISE), MCA	13-11-21	6.5 LPA	5
23	Qspiders	Incubation Trainees	BE ( All departments), MCA, M.Tech	16-11-21	3 LPA	
24	Shobha Constructions LLC, Dubai	Graduate Engineer Trainee	BE (IEM, Civil)	20-11-21	12 LPA	1
25	NTT Data	Graduate Engineer Trainee	B.E (CSE, ISE, ECE, EEE, TCE, EIE)	23-11-21	3.5 LPA	4
26	Target Technologies	Data Engineer	BE (CSE, ISE)	24-11-21	13.03 LPA	8
27	Adobe Systems	Associate Technical Consultant	B.E (CSE, ISE, ECE,EEE)	02-12-21	10 LPA	0
28	Wiley Mthree	Graduate Engineer Trainee	B.E (All departments)	02-12-21	7 LPA	3
29	Zopsmart	Software Development Engineer	BE (CSE, ISE, ECE), MCA	09-12-21	10 LPA	3
30	Covalense Digital	Trainee Software Developer	BE (CSE, ISE, ECE)	14-12-21	4.2 LPA	5
31	BYJU's India Pvt Ltd.	Academic Specialist	B.E (All departments)	24-12-21	6 LPA	4
32	CommScope Networks Pvt Ltd.	SW Developer/SW Tester	B.E (CSE, ISE, ECE, EEE, TCE, EIE, ML), MCA, M.Tech	03-01-22	14 LPA	5
33	Infor India Pvt Ltd.	Associate Developer	B.E(CSE, ISE,ECE,EEE,TCE,ME), MCA	04-01-22	6.5 -8.5 LPA	9
34	JSW	Graduate Engineer Trainee	B.E (ME, CVE, EEE)	05-01-22	5.5 LPA	3
35	BYJU's India Pvt Ltd.	Business Development Analyst	B.E (All departments), MBA	08-01-22	10 LPA	1

43

SL.No	Name of the Company	Job Position	Department	Date of visit	Cost To company	Number of students placed
36	HCL Technologies	Graduate Engineer Trainee	B.E (CSE, ISE, ECE, TCE, EIE, EEE)	14-01-22	3.5 LPA	5
37	Quest Global	Software Trainee Engineer	B.E (CSE, ISE, ECE, TCE, EIE, EEE)	31-01-22	3.25 LPA	16
38	Daimler Truck Innovation Center India (DTICI)	Graduate Engineer Trainee	B.E (CSE, ISE), M.Tech( ECE, TCE)	01-02-22	10-12 LPA	4
39	Bosch Global Software Technologies Pvt Ltd.	Graduate Engineer Trainee	B.E (CSE, ISE, ECE, TCE, EIE, EEE)	07-02-22	5 LPA	79
40	Amazon	Software Developer Engineer	B.E (CSE, ISE, ECE, TCE, EIE, EEE)	19-02-22	25 LPA	Ongoing
41	Schneider Electric	Graduate Engineer Trainee	B.E (ECE, EEE , EIE)	11-03-22	3.75 LPA	Ongoing
42	IBM Systems	Software Developer	B.E (CSE, ISE, ECE, EEE, TCE, EIE), M.Tech	12-03-22	11 LPA	1
43	Dream Gains	Relationship Manager	B.E (All departments)	14-03-22	5.06 LPA	7
44	Harman Connected Services	Graduate Engineer Trainee	B.E (CSE, ISE, ECE, TCE, EIE, EEE)	15-03-22	5.5 LPA	18
45	Kickdrum	Software Developer	B.E (CSE, ISE)	16-03-22	14.66	Ongoing
46	Kyndryl (An IBM company)	Associate Technical Engineer	B.E (CSE, ISE, ECE, EEE, TCE, EIE), M.Tech, MCA	18-03-22	4.5 LPA	Ongoing
47	Neosoft Technologies	Software Engineer	B.E (CSE, ISE, ECE)	26-03-22	3.6-6.6 LPA	3
48	ITC Infotech India Ltd.	Associate IT Consultant	B.E (CSE, ISE, ECE, EEE, TCE, EIE)	28-03-22	4.25 LPA	9
49	Sonata Software	Digital Trainee Engineers	B.E (All departments except Civil), MCA	29-03-22	3.5 LPA	2
50	Hob Vision Technologies	Trainee Software Engineer	MCA	30-03-22	3 LPA	0
51	Axiscades	Trainee Engineer	B.E (CSE, ISE, ECE, EEE, Mech), M.Tech (PE)	04-04-22	3.2 LPA	8
52	DevTown	Business Development Analyst	B.E (All departments)	07-04-22	5-8 LPA	27
53	Skolar	Business Development Trainee	B.E (All departments), MBA	18-04-22	9 LPA	8
54	Air Mech Engineers	Trainee Engineer	B.E (Mechanical)	20-04-22	2.4 LPA	11

55	COLT Technology Services	Trainee Engineer	B.E (CSE, ISE, ECE, EEE)	20-04-22	5.5 LPA	Ongoing
56	SimpliLearn	Research Analyst	B.E (All departments)	25-04-22	3 LPA	Ongoing
57	Sasken Technologies	Associate Software Engineer	B.E (CSE, ISE, ECE)	26-04-22	5 LPA	Ongoing
58	Tata Elxsi	Graduate Engineer Trainee	B.E (CSE, ISE, ECE, EEE, TCE, EIE, ML), MCA, M.Tech	02-05-22	3.5 LPA	14
59	A O Smith	Graduate Engineer Trainee	B.E (Mechanical)	07-05-22	4 LPA	Ongoing
60	Puravankara LTD	Engineer Trainee	B.E (Civil)	19-05-22	2.5 LPA	0
61	Lekha Wireless	Engineer Trainee	B.E (CSE, ISE, ECE, EEE, TCE, EIE)	20-05-22	4 LPA	2
62	Toyota Kirloskar	Graduate Engineer Trainee	B.E (Mechanical, EEE)	22-05-22	3 LPA	Ongoing
63	Berry Global	Engineer Trainee	B.E (Mechanical)	25-05-22	4 LPA	Ongoing
64	Deloitte Digital	Product Developer	B.E (CSE, ISE, ECE, EEE, TCE, EIE, ML) M.Tech	02-06-22	4.5 LPA	Ongoing
65	Sacha Engineering	Graduate Engineer Trainee	B.E (Mechanical, IEM)	03-06-22	3.2 LPA	Ongoing
<b>TOTAL NUMBER OF STUDENT'S OFFERED = 746*</b>						

45

  
**TRAINING AND PLACEMENT OFFICER**  
**Dr. Ambedkar Institute of Technology**  
**Bengaluru - 560 056**

Annonure -7



Visvesvaraya Technological University  
(State University Government of Karnataka Established as per VTU Act 1994)  
"Jnana Sangama", Belagavi - 590 018, Karnataka State

Dr. A S. Deshpande B.E., M.Tech., Ph.D.  
**REGISTRAR**

Phone : (0831) 2405460  
Fax : (0831) 2405460

Ref: VTU/BGM/Aca/2021-22/ 457

Date :

20 APR 2022

To,

Dr. Sriram G. Sanjeevi Department of CSE, National Institute of Technology, Warangal - 506004, Telangana, INDIA Email : <a href="mailto:sgs@nitw.ac.in">sgs@nitw.ac.in</a> , <a href="mailto:sgsanjeevi108@gmail.com">sgsanjeevi108@gmail.com</a> Phone: 08702468711	Dr B Venkatesa Perumal Department of Electrical and Electronics National Institute of Technology Srinivasnagar (P.O.) Surathkal Mangalore - 575 025 Karnataka Telephone: +91-9980861389 Email: <a href="mailto:bvperumal@nitk.edu.in">bvperumal@nitk.edu.in</a> <a href="mailto:bvperumal@gmail.com">bvperumal@gmail.com</a>	Dr. Babu Viswanathan Department of Mechanical Engineering Indian Institute of Technology Madras, Chennai. 600 036, India. Telephone: +91 44 2257 4688 Email: <a href="mailto:vbabu@iitm.ac.in">vbabu@iitm.ac.in</a>
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Dear Sir/Madam,

Sub: Nomination as an Expert Member on IQAC Peer Team- reg...

Ref: 1. Clause 4.3 (A (iv) of VTU Autonomous College (Amended) 2018 Statutes and  
Notification dated 04.05.2021

2. The Hon'ble Vice Chancellors Order dated 11.2.2022

Adverting to the above subject and the directions of the Hon'ble Vice Chancellor, I have the honor to invite you to be the Peer Team Member of Internal Quality Assurance Cell (IQAC) for institute Dr. Ambedkar Institute of Technology, Near Gnana Bharathi ( New Ground) Mallathalli, Bengaluru -560056 an Autonomous Institute under the ambit of VTU, Belagavi. Peer team is constituted by the university as per VTU, Belagavi, Statutes on Autonomous Colleges (Amended) 2018 and notified dated 4<sup>th</sup> May 2021.

It is our humble request to kindly accept this nomination and be the part of IQAC Peer Team Member. The term of this assignment will be for a period of **three years**. The scope of External Peer Team which would be the part of IQAC of the institute is explained in the enclosed document i.e. VTU Statutes on Autonomous Colleges (Amended) 2018.

We request you to e-mail your acceptance ([registrar@vtu.ac.in](mailto:registrar@vtu.ac.in) with cc to [office.suptd@vtu.ac.in](mailto:office.suptd@vtu.ac.in)) in this regard immediately, so that further course of action will be planned by the University and the institute.

Thanking You,

Yours faithfully,

Encl: as above

**REGISTRAR**

Copy fwc's to

1. The Additional/ Joint Secretary, University Grants Commission, Bahadur Shah Zafar, New Delhi - 110002
2. The Principal, Dr. Ambedkar Institute of Technology Near Gnana Bharathi ( New Ground) Mallathalli, Bengaluru -560056 for information and to take care of the Travel and all other expenses related visits including inception by the Peer Team.
3. The Secretary to Hon'ble Vice Chancellor, Belagavi.

1

IQAC TO file  
null  
26/4/22

46

# Engress Services

Yashashree, 26, Nirmal Bag Society,  
Near Mukhtangan English School, Parvati, Pune 411 009  
Tel: 09890444795 Email: [engress123@gmail.com](mailto:engress123@gmail.com)

Ref: ES/DAIT/21-22/04

Date: 8/5/2022

## CERTIFICATE

This is to certify that we have conducted Green and Environmental Audit at Dr. Ambedkar Institute of Technology, Outer Ring Road, Mallathahalli, Bengaluru 560 056 in the Academic year 21-22.

The Institute has adopted following Energy Efficient, Green and Environment Friendly practices:

- Usage of Energy Efficient LED Fittings
- Usage of Energy Efficient BEE STAR Rated equipment
- Installation of **4000 LPD** Solar Thermal Water Heating System
- Provision of Bio composting Unit for Organic Waste Management
- Tree Plantation in the campus
- Provision of Sanitary Waste Incinerator for disposal of Sanitary Waste
- Creation of awareness by Display of posters on Resource conservation
- Encouragement for Usage of E Vehicles

We appreciate the support of Management, involvement of faculty members and students in the process of Energy Conservation & making the campus Green.

For Engress Services,

**A Y Mehendale,**  
Certified Energy Auditor  
EA-8192

# Engress Services

Yashashree, 26, Nirmal Bag Society,  
Near Mukhtangan English School, Parvati, Pune 411 009  
Tel: 09890444795 Email: [engress123@gmail.com](mailto:engress123@gmail.com)

Ref: ES/DAIT/21-22/05

Date: 8/5/2022

Certificate in respect of various Environmental Parameters measured at Dr.  
Ambedkar institute of technology, Bengaluru

No	Parameter	Maximum Value-Measured	Minimum Value-Measured	Average Value	Standard Satisfactory Range	Remarks
1	AQI	70	53	61.44	51 to 100	Satisfactory
2	PM-2.5	42	31	37.5	31 to 60	Satisfactory
3	PM-10	51	32	43.44	51 to 100	Satisfactory
4	Temperature, °C	27.9	24.5	26.94	Less Than 33	Satisfactory
5	Humidity, %	78	62	71.06	About 70 %	Okay
6	Lux Level	396	39	163.19	160 Plus	Satisfactory
7	Noise Level, dB	66	32	40.88	40 to 45	Satisfactory

## Conclusion:

1. From the above 7 important Indoor Air Quality and Indoor Comfort Parameters, we conclude that, all the above seven parameters are in the **Satisfactory Range**.
2. The slight increase in the value of Humidity was due to Rain fall on the Audit Date.

For Engress Services,

**A Y Mehendale**  
Certified Energy Auditor  
EA-8192

**ENVIRONMENTAL AUDIT REPORT**  
of  
**Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY,**  
Outer Ring Road, Mallathahalli,  
Bengaluru 560 056



Year: 2021-22

Prepared by

**ENGRESS SERVICES**

Yashashree, 26, Nirmal Bag Society,  
Near Mukhtangan English School, Parvati, Pune 411009  
Phone: 09890444795, Email: [engress123@gmail.com](mailto:engress123@gmail.com)

MAHARASHTRA ENERGY DEVELOPMENT AGENCY



**Maharashtra Energy Development Agency**

(Government of Maharashtra Institution)

Aundh Road, Opposite Spicer College Road, Near Commissionerate of Animal Husbandary,

Aundh, Pune, Maharashtra 411067

Ph No: 020-35000450

Email: [eee@mahaurja.com](mailto:eee@mahaurja.com), Web: [www.mahaurja.com](http://www.mahaurja.com)

ECN/2021-22/CR-43/441

8<sup>th</sup> February, 2022

**CERTIFICATE OF REGISTRATION  
FOR CLASS 'B'**

We hereby certify that, the firm having following particulars is registered with **MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA)** under given category as "Energy Planner & Energy Auditor" in Maharashtra for Energy Conservation Programme of MEDA.

**Name and Address of the firm** : M/s Engress Services  
Yashshree, 26, Nirmal Bag Society,  
Near Muktangan English School,  
Parvati, Pune – 411 009.

**Registration Category** : *Empanelled Consultant for Energy Conservation Programme for Class 'B'*

**Registration Number** : *MEDA/ECN/2021-22/Class B/EA-07.*

- Energy Conservation Programme intends to identify areas where wasteful use of energy occurs and to evaluate the scope for Energy Conservation and take concrete steps to achieve the evaluated energy savings.
- MEDA reserves the right to visit at any time without giving prior information to verify quarterly activities performed by the firm and canceling the registration, if the information is found incorrect.
- This empanelment is valid till **7<sup>th</sup> February, 2024** from the date of registration, to carry out energy audits under the Energy Conservation Programme
- The Director General, MEDA reserves the right to cancel the registration at any time without assigning any reasons thereof.

  
General Manager (EC)

# Engress Services

Yashashree, 26, Nirmal Bag Society,  
Near Mukhtangan English School, Parvati, Pune 411 009  
Tel: 09890444795 Email: [engress123@gmail.com](mailto:engress123@gmail.com)

Ref: ES/DAIT/21-22/03

Date: 8/5/2022

## CERTIFICATE

This is to certify that we have conducted Environmental Audit at Dr. Ambedkar Institute of Technology, Outer Ring Road, Mallathahalli, Bengaluru 560 056 in the Academic year 2021-22.

The Institute has adopted following Environment Friendly practices:

- Usage of Energy Efficient LED Fittings
- Usage of Energy Efficient BEE STAR Rated equipment
- Installation of **4000 LPD** Solar Thermal Water Heating System
- Provision of Bio composting Unit for Organic Waste Management
- Tree Plantation in the campus
- Provision of Sanitary Waste Incinerator for disposal of Sanitary Waste
- Creation of awareness by Display of posters on Resource conservation
- Encouragement for Usage of E Vehicles

We appreciate the support of Management, involvement of faculty members and students in the process of Energy Conservation & making the campus Green.

**For Engress Services,**

**A Y Mehendale,**  
Certified Energy Auditor  
EA-8192

## INDEX

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## **ACKNOWLEDGEMENT**

We Engress Services, Pune, express our sincere gratitude to the management of Dr. Ambedkar Institute of Technology, Outer Ring Road, Mallathahalli, Bengaluru 560 056 for awarding us the assignment of Environmental Audit of their campus for the Academic Year: 2021-22.

We are thankful to all Faculty members & Staff members for helping us during the field study.

## EXECUTIVE SUMMARY

1. Dr. Ambedkar Institute of Technology, Outer Ring Road, Mallathahalli, Bengaluru consumes Energy in the form of Electrical Energy and Diesel used for various gadgets, Office & other facilities

### 2. Present Energy Consumption & CO<sub>2</sub> Emission:

No	Parameter	Energy consumed, kWh	Diesel Consumed, Liters	CO <sub>2</sub> Emissions, MT
1	Total			
2	Maximum			
3	Minimum			
4	Average			

### 3. Pollution caused due to Institute Activities:

- **Air pollution:** Mainly CO<sub>2</sub> on account of Electricity Consumption
- **Solid Waste:** Bio degradable Kitchen Waste, Garden Waste
- **Liquid Waste:** Human liquid waste

### 4. Usage of Renewable Energy & CO<sub>2</sub> Emission Reduction:

- The Institute has installed 4000 LPD Solar Water Heating System.
- The Equivalent Electrical Energy generated by Solar System is 344448 kWh.
- The Annual Reduction in CO<sub>2</sub> Emissions due to Solar System is 310 MT

### 5. Indoor Air Quality Parameters:

No	Parameter/Value	AQI	PM-2.5	PM-10
1	Maximum	70	42	51
2	Minimum	53	31	32

### 6. Indoor Comfort Condition Parameters:

No	Parameter/Value	Temperature, °C	Humidity, %	Lux Level	Noise Level, dB
1	Maximum	27.9	78	396	66
2	Minimum	24.5	62	39	32

### 7. Waste Management:

#### 7.1 Segregation of Waste at Source:

The waste is segregated at source. Separate Dry and Wet waste collection bins are provided at key locations in the campus. It is then further disposed.

## **7.2 Organic Waste Management:**

The organic waste generated is composted in a Vermi Composting Unit and the bio compost produced is used for own garden in the premises.

## **7.3 Liquid Waste Management:**

The Institute is in a process of Installation of Sewage Treatment Plant to treat the Liquid Waste. The treated water will be used for gardening purpose.

## **7.4 E- Waste Management:**

E Waste is collected in a separate Bin and is disposed of through Authorized Vendors.

## **8. Rain Water Management:**

The rain water falling on the terrace is run through the pipes and channels and is used to increase the underground water table.

## **9. Green & Sustainable Practices:**

- Maintenance of internal Lawn and Garden
- Tree Plantation in the campus
- Creation of awareness by Display of posters on Resource conservation
- Encouragement of Usage of E Vehicles

## **10. Notes & Assumptions:**

1. 1 kWh of Electrical Energy releases 0.9 Kg of CO<sub>2</sub> into atmosphere
2. 100 LPD Solar Thermal System saves 1500 kWh of Energy per Annum.

## **11. References:**

1. For Indoor Air Quality: [www.cpcb.com](http://www.cpcb.com)
2. For Indoor Comfort Parameters: [www.ishrae.com](http://www.ishrae.com)
3. For Energy Generated by Solar PV Plant: [www.solarroftop.gov.in](http://www.solarroftop.gov.in)
4. For Computation of CO<sub>2</sub> Emissions: [www.tatapower.com](http://www.tatapower.com)

## **ABBREVIATIONS**

Kg	: Kilo Gram
MSEDCL	: Maharashtra State Distribution Company Limited
MT	: Metric Ton
kWh	: kilo-Watt Hour
LPD	: Liters per Day
LED	: Light Emitting Diode
AQI	: Air Quality Index
PM-2.5	: Particulate Matter of Size 2.5 Micron
PM-10	: Particulate Matter of Size 10 Micron
CPCB	: Central Pollution Control Board
ISHRAE	: The Indian Society of Heating & Refrigerating & Air Conditioning Engineers

## CHAPTER-I INTRODUCTION

### 1.1 Important Definitions:

#### 1.1.1 Environment: Definition as per environment Protection Act: 1986

Environment includes water, air and land and the inter-relationship which exists among and between Water, Air, Land and Human beings, other living creatures, plants microorganism and property

#### 1.1.2. Environmental Audit: Definition:

An audit which aims at verification and validation to ensure that various environmental laws are complied with and adequate care has been taken towards environmental protection and preservation. According to UNEP, 1990, "Environmental audit can be defined as a management tool comprising systematic, documented and periodic evaluation of how well environmental organization management and equipment are performing with an aim of helping to regularize the environment

**1.1.3. Environmental Pollutant:** means any solid, liquid and gaseous substance present in the concentration as may be, or tend to be, injurious to Environment.

#### 1.1.4. Table No-1: Relevant Environmental Laws in India:

1927	The Indian Forest Act
1972	The Wildlife Protection Act
1974	The Water (Prevention and Control of Pollution) Act
1977	The Water (Prevention & Control of Pollution) Cess Act
1980	The Forest (Conservation) Act
1981	The Air (Prevention and Control of Pollution) Act
1986	The Environment Protection Act
1991	The Public Liability Insurance Act
2002	The Biological Diversity Act
2010	The National Green Tribunal Act

#### 1.1.5. Table No-2: Some Important Environmental Rules in India:

1989	Hazardous Waste (Management and Handling) Rules
1989	Manufacture, Storage and Import of Hazardous Chemical Rules
2000	Municipal Solid Waste (Management and Handling) Rules
1998	The Biomedical Waste (Management and Handling) Rules
1999	The Environment (Siting for Industrial Projects) Rules
2000	Noise Pollution (Regulation and Control) Rules
2000	Ozone Depleting Substances (Regulation and Control) Rules
2011	E-waste (Management and Handling) Rules
2011	National Green Tribunal (Practices and Procedure) Rules
2011	Plastic Waste (Management and Handling) Rules

### 1.1.6 Table No-3: National Environmental Plans & Policy Documents:

1.	National Forest Policy, 1988
2.	National Water Policy, 2002
3.	National Environment Policy or NEP (2006)
4.	National Conservation Strategy and Policy Statement on Environment and Development, 1992
5.	Policy Statement for Abatement of Pollution (1992)
6.	National Action Plan on Climate Change
7.	Vision Statement on Environment and Human Health
8.	Technology Vision 2030 (The Energy Research Institute)
9.	Addressing Energy Security and Climate Change (MoEF and Bureau of Energy Efficiency)
10.	The Road to Copenhagen; India's Position on Climate Change Issues (MoEF)

### 1.2 Objectives:

1. To study Resource consumption and CO<sub>2</sub> Emission
2. To study usage of Renewable Energy & CO<sub>2</sub> Emission Reduction
3. Study Indoor Air Quality Parameters
4. Study of Indoor Comfort Condition Parameters
5. To study Waste Management
6. To study Rain Water Harvesting
7. To study Environment Friendly initiatives

### 1.3 Google Earth Image:



Institute  
Layout

### 1.4 Table No-4: General Details of Institute:

No	Head	Particulars
1	Name	Dr. Ambedkar Institute of Technology
2	Address	Outer Ring Road, Mallathahalli, Bengaluru

## CHAPTER-II

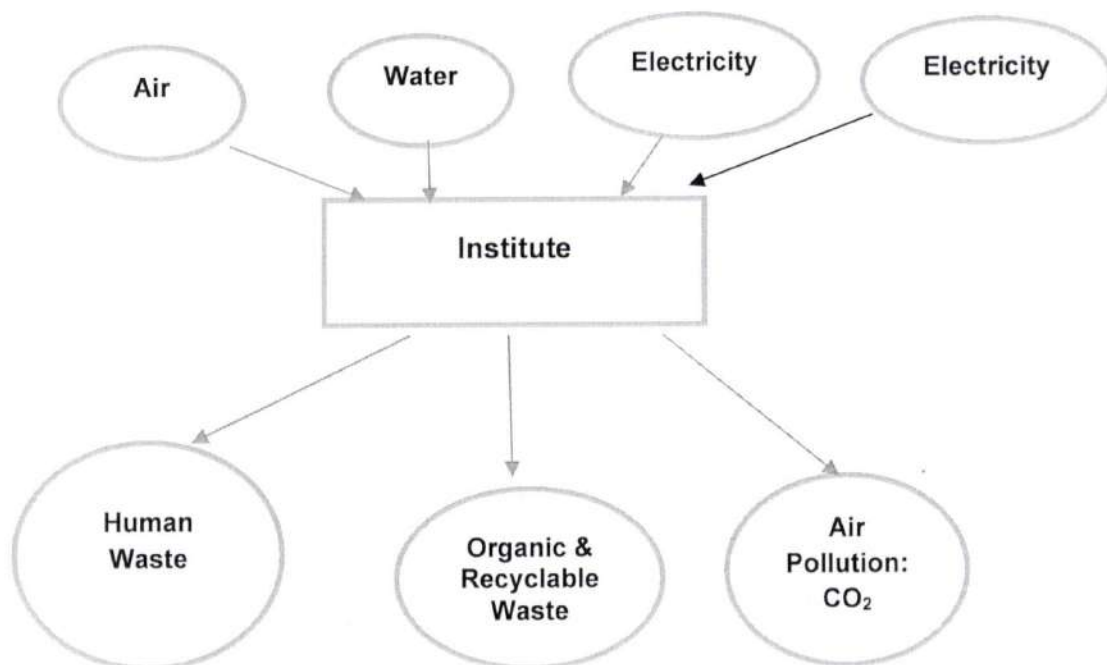
### STUDY OF CONSUMPTION OF RESOURCES & CO<sub>2</sub> EMISSION

2.1 The Institute consumes following Natural/derived Resources:

1. Air
2. Water
3. Electrical Energy

We try to draw a schematic diagram for the Institute System & Environment as under.

2.2 Chart No 1: Representation of Institute as a System:



2.3 Computation of CO<sub>2</sub> Emissions: A Carbon Foot print is defined as the Total Greenhouse Gas Emissions, emitted due to various activities. The Institute uses Electrical Energy for various Electrical gadgets & day to day activities.

Basis for computation of CO<sub>2</sub> Emissions:

- 1 kWh of Electrical Energy releases 0.9 Kg of CO<sub>2</sub> into atmosphere
- 1 Liter diesel releases 2.68 of CO<sub>2</sub> into atmosphere

Table No 5: Month wise CO<sub>2</sub> Emissions:

**Chart No 2: Representation of Month wise CO<sub>2</sub> emissions:**

**Table No 6: Key Parameters:**

### CHAPTER-III

## STUDY OF REDUCTION IN CO<sub>2</sub> EMISSION

In this Chapter, we study the usage of Renewable Energy and compute the reduction in CO<sub>2</sub> Emissions. The Institute has installed Solar Water Heating System of Capacity 4000 LPD at the Hostel block.

**100 LPD** Solar Thermal Water Heating System saves **1500 kWh** of Electrical Energy in one Year.

In the following Table, we present the reduction in CO<sub>2</sub> Emissions.

**Table No 6: Computation Annual Reduction in CO<sub>2</sub> Emissions:**

No	Particulars	Value	Unit
1	Solar Water Heating System at Hostel Block	4000	LPD
2	Energy Saved by 100 LPD Solar Thermal System in 365 Days	1500	kWh
3	Energy saved by 1500 LPD System in 1 Year = $4000 \times 1500 / 100$	60000	kWh
4	Actual Usage Period in 21-22	200	Nos
5	Energy saved in 200 Days of operation in 21-22 = $200 \times 60000 / 365$	32877	kWh
6	Equivalent Electrical Energy saved by 2500 LPD System	<b>32877</b>	<b>kWh</b>
7	1 kWh of Electrical Energy is equal to	0.9	Kg of CO <sub>2</sub>
8	Annual reduction in CO <sub>2</sub> Emissions in 19-20 = $6 \times 7 / 1000$	<b>30</b>	<b>MT of CO<sub>2</sub></b>

**Photograph of Solar Thermal Water Heating System:**



## CHAPTER-IV

### STUDY OF INDOOR AIR QUALITY PARAMETERS

#### 4.1 Importance of Air Quality:

**Air:** The common name given to the atmospheric gases used in breathing and photosynthesis.

By volume, Dry Air contains 78.09% Nitrogen, 20.95% Oxygen, 0.93% Argon, 0.039% carbon dioxide, and small amounts of other gases.

On average, a person inhales about **14,000 liters** of air every day. Therefore, poor air quality may affect the quality of life now and for future generations by affecting the health, the environment, the economy and the city's livability.

Rapid urbanization and industrialization has added other elements/compounds to the pure air and thus caused the increase in pollution. In order to prevent, control and abate air pollution, the Air (Prevention and Control of Pollution) Act was enacted in 1981.

**Air quality is a measure of the suitability of air for breathing by people, plants and animals.**

According to Section 2(b) of Air (Prevention and control of pollution) Act, 1981 'air pollution' has been defined as '**the presence in the atmosphere of any air pollutant.**'

As per Section 2(a) of Air (Prevention and control of pollution) Act, 1981 'air pollutant' has been defined as '**any solid, liquid or gaseous substance [(including noise)] present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment**

#### 4.2 Air Quality Index:

An **Air Quality Index (AQI)** is a number used by government agencies to measure the **air pollution** levels and communicate it to the population. As the AQI increases, it means that a large percentage of the population will experience severe adverse health effects. The measurement of the **AQI** requires an **air monitor** and an **air pollutant** concentration over a specified **averaging period**.

We present herewith following important Parameters.

1. AQI- Air Quality Index
2. PM-2.5- Particulate Matter of Size 2.5 micron
3. PM-10- Particulate Matter of Size 10 micron

**Table No 8: Indoor Air Quality Parameters:**

No	Location	AQI	PM-2.5	PM-10
	First Floor			
1	Principal's office A block	60	37	38
2	IQAC Room A block	53	36	48

3	Main porch	63	34	43
4	Administrative office A block	61	37	40
5	A-109 Physics Lab	61	37	39
6	A-118 chemistry Lab	63	38	42
7	D-101 dept. Library	70	42	49
8	D-104 Computer Lab	70	40	49
9	D-107 UG Lab	56	34	42
10	C-108 CS Lab	65	40	50
11	C-220 EC dept.	66	42	49
12	C-320 LD- ECE Lab	66	42	51
13	C-410 Smart class room	56	36	42
14	B-301 Medical electronics library	56	31	32
15	B-307 Staff room	61	37	39
16	B-309 medical electronics lab	56	37	42
	Maximum	70	42	51
	Minimum	53	31	32

## CHAPTER V

### STUDY OF INDOOR COMFORT CONDITION PARAMETERS

In this Chapter, we present the various Indoor Comfort Parameters measured during the Audit.

The Parameters include:

1. Temperature
2. Humidity
3. Lux Level
4. Noise Level.

**Table No 9: Study of Indoor Comfort Condition Parameters:**

No	Location	Temperature, °C	Humidity, %	Lux Level	Noise Level, dB
	First Floor				
1	Principal's office	24.6	62	220	66
2	IQAC Room	24.5	78	120	32
3	Main porch	27.4	73	60	50
4	Administrative office	27	70	221	38
5	A-109 Physics Lab	26.9	73	95	35
6	A-118 chemistry Lab	26.8	73	160	42
7	D-101 dept. Library	27.2	71	120	37
8	D-104 Computer Lab	27.3	70	174	38
9	D-107 UG Lab	26.8	73	39	35
	Second floor				
10	C-108 CS lab	26.9	73	130	40
11	C-220 ECE dept.	27.8	70	63	46
12	C-320 LD-ECE Lab	27.9	69	138	37
13	C-410 Smart class room	27.4	72	257	42
14	B-301 Medical electronics lab	27.4	70	396	35
15	B-307 Staff room	27.5	70	278	41
16	B-309 medical electronics lab	27.6	70	140	40
	Maximum	27.9	78	396	66
	Minimum	24.5	62	39	32

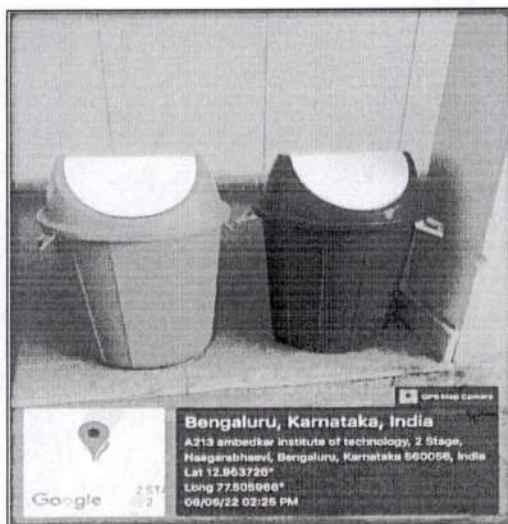
## CHAPTER-VI

### STUDY OF WASTE MANAGEMENT

#### 6.1 Segregation of Waste at Source:

The waste is segregated at source. Separate Dry and Wet waste collection bins are provided at key locations in the campus. It is then further disposed.

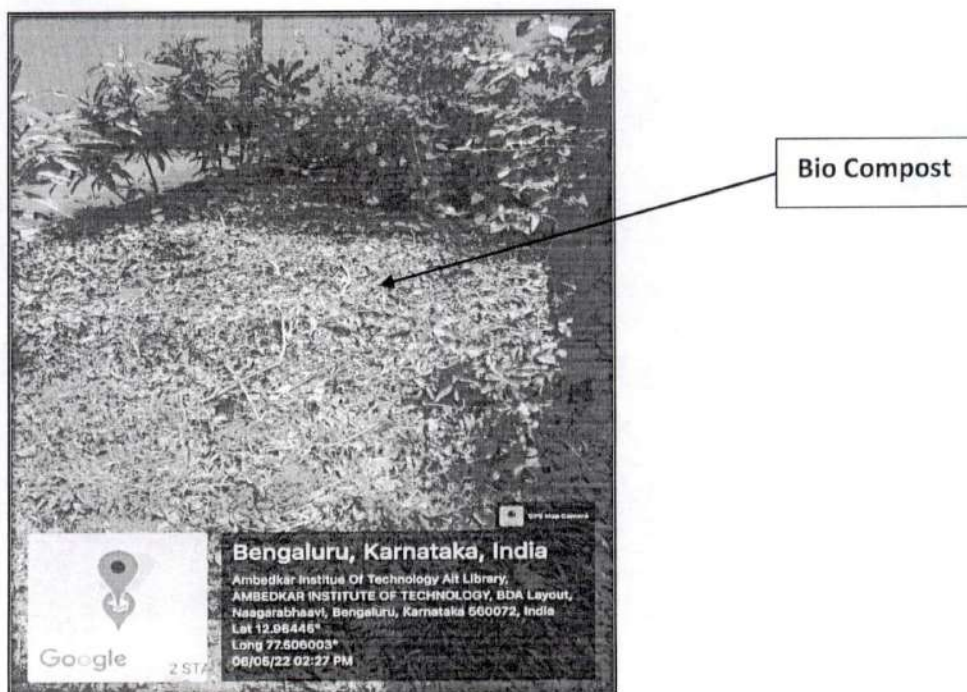
#### Photograph of Waste Collection Bins:



#### 6.2 Organic Waste Management:

The organic waste, like leafy waste generated is composted in a Bio Composting Unit and the compost produced is used for own garden.

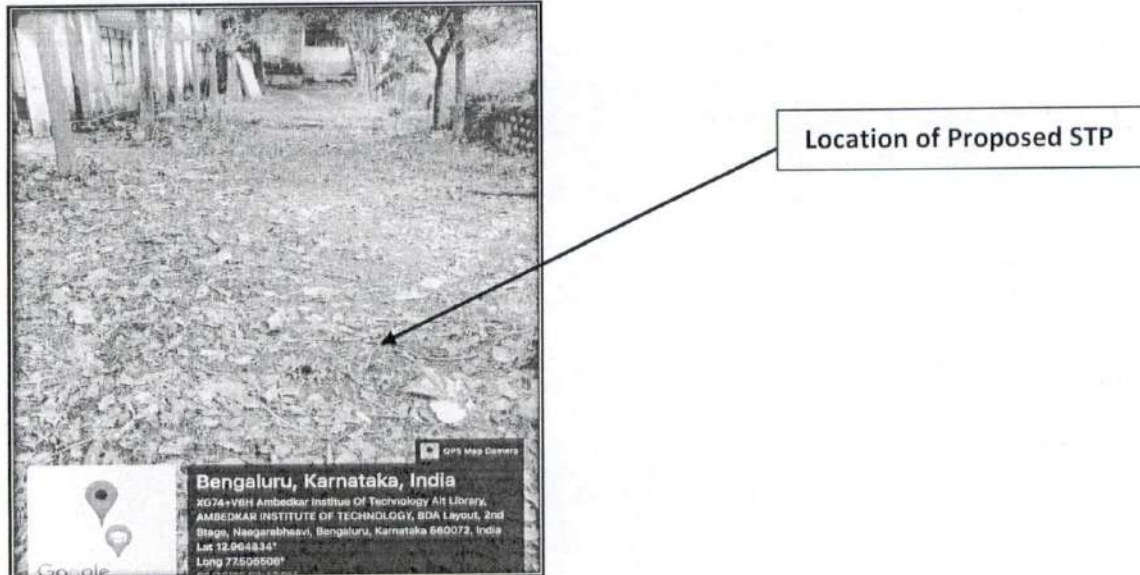
#### Photograph of Bio Composting Unit:



### 6.3 Liquid Waste Management:

The Institute is in process of Installation of a Sewage Treatment Plant, to treat the Liquid Waste. The treated water will be used for gardening purpose.

#### Present Photograph of Sewage Treatment Plant Site:



### 6.4 E Waste Management:

The E Waste is collected in a separate E Waste collection bin and is disposed of through Authorized Agency.

#### Photograph of E Waste Collection Bin:

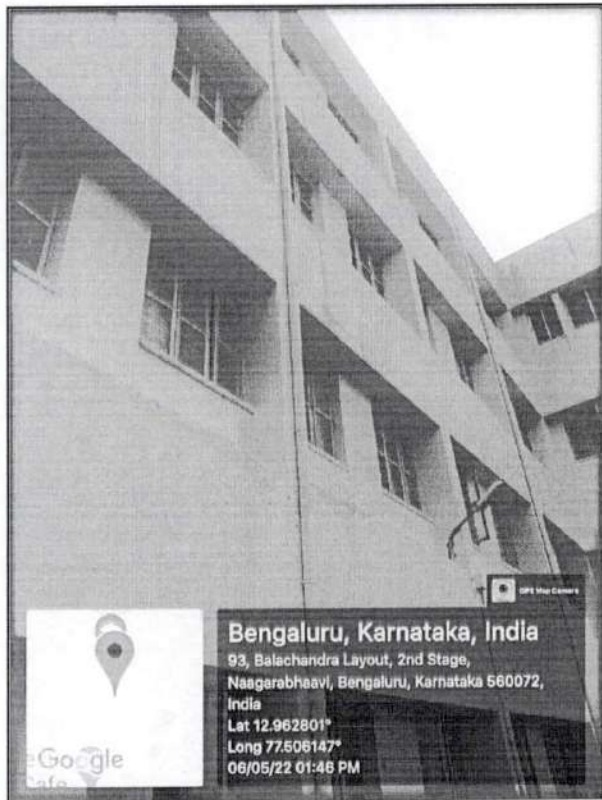


## CHAPTER-VII

### STUDY OF RAIN WATER MANAGEMENT

The Institute has installed Pipes from the terrace and the Rain water falling on the terrace is gathered and used to increase the underground water table.

Photograph of Rain Water Collection Pipe and Channel Section:



## CHAPTER-VIII

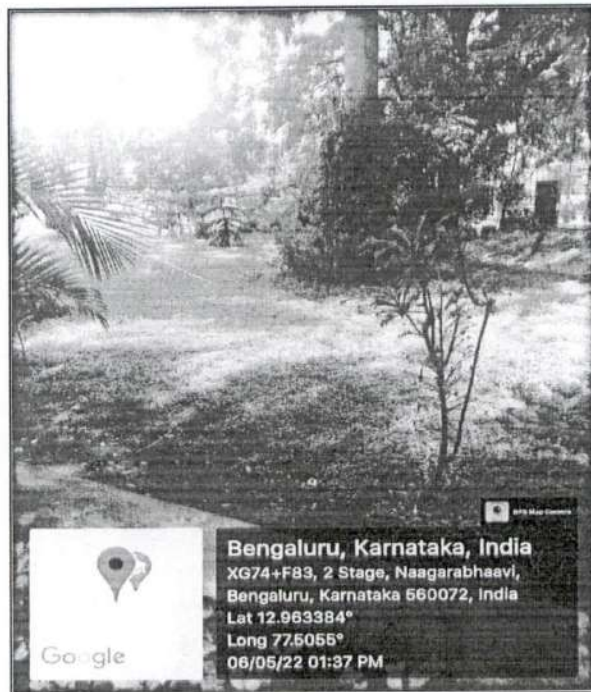
### STUDY OF ENVIRONMENT FRIENDLY INITIATIVES

#### 8.1 Internal Tree Plantation:

The Institute has well maintained landscaped garden in the campus.

**Photograph of Tree plantation:**

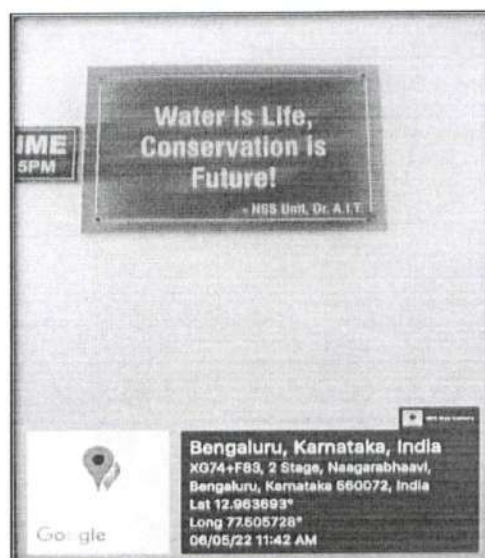
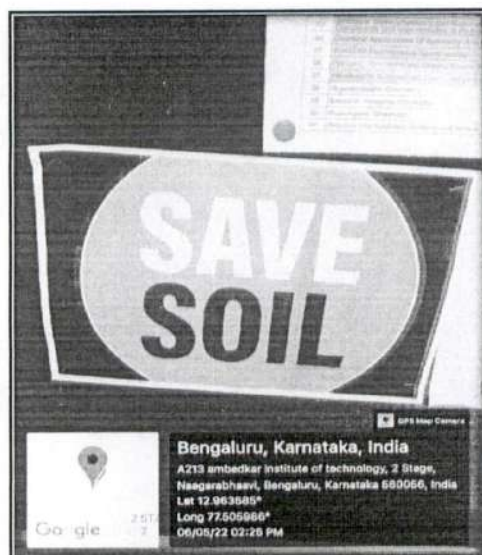
**Photograph of Lawn and Tree Plantation:**



#### 8.2 Creation of Awareness by Display of Posters:

The Institute has displayed posters by display of Posters on Resource Conservation.

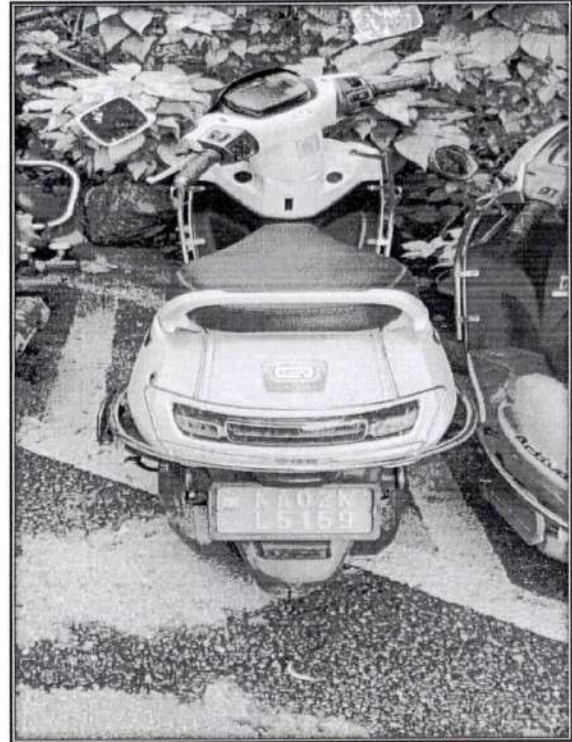
**Photograph of Posters on Resource Conservation:**



### 8.3 Encouragement for Usage of E Vehicle:

The Institute is encouraging the usage of E Vehicles by Stake holders. Some faculties are using the E Vehicles.

#### Photograph of E Vehicles:



### 8.4 Provision of Sanitary Waste Incinerator:

For disposal of Sanitary Waste, a Sanitary Waste Incinerator is installed in the campus.

#### Photograph of Sanitary Waste Incinerator:



## **ANNEXURE: VARIOUS AIR QUALITY, WATER QUALITY, NOISE & INDOOR COMFORT STANDARDS:**

### **1. Category Wise Air Quality Index Values & Concentration of PM 2.5 & PM10:**

No	Category	AQI Value	Concentration Range, PM 2.5	Concentration Range, PM 10
1	Good	0 to 50	0 to 30	0 to 50
2	Satisfactory	51 to 100	31 to 60	51 to 100
3	Moderately Polluted	101 to 200	61 to 90	101 to 250
4	Poor	201 to 300	91 to 120	251 to 350
5	Very Poor	301 to 400	121 to 250	351 to 430
6	Severe	401 to 500	250 +	430 +

### **2. Recommended Water Quality Standards:**

No	Designated Best Use	Criteria
1	Drinking Water Source without conventional Treatment but after disinfection	pH between 6.5 to 8.5 Dissolved Oxygen 6 mg/l or more
2	Drinking water source after conventional treatment and disinfection	pH between 6 to 9 Dissolved Oxygen 4 mg/l or more
3	Outdoor Bathing (Organized)	pH between 6.5 to 8.5 Dissolved Oxygen 5 mg/l or more
4	Controlled Waste Disposal	pH between 6 to 8.5

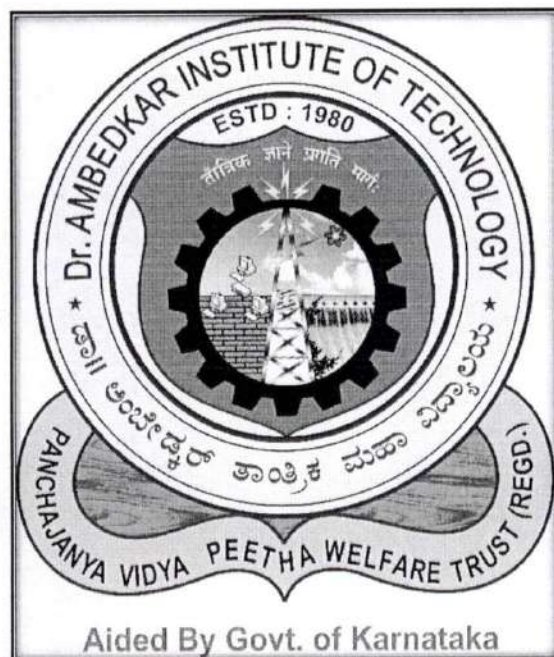
### 3. Recommended Noise Level Standards:

No	Location	Noise Level dB
1	Auditoriums	20-25
2	Outdoor Playground	55
3	Occupied Class Room	40-45
4	Un occupied Class Room	35
5	Apartment, Homes	35-40
6	Offices	45-50
7	Libraries	35-40
8	Restaurants	50-55

### 4. Thermal Comfort Conditions: For Non-conditioned Buildings:

No	Parameter	Value
1	Temperature	Less Than 33 <sup>0</sup> C
2	Humidity	Less Than 70%

**GREEN AUDIT REPORT**  
of  
**Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY,**  
Outer Ring Road, Mallathahalli,  
Bengaluru 560 056



Year: 2021-22

Prepared by

**ENGRESS SERVICES**

Yashashree, 26, Nirmal Bag Society,  
Near Mukhtangan English School, Parvati, Pune 411009  
Phone: 09890444795, Email: [engress123@gmail.com](mailto:engress123@gmail.com)

MAHARASHTRA ENERGY DEVELOPMENT AGENCY



**Maharashtra Energy Development Agency**

(Government of Maharashtra Institution)

Aundh Road, Opposite Spicer College Road, Near Commissionerate of Animal Husbandary,  
Aundh, Pune, Maharashtra 411067

Ph No: 020-35000450

Email: [eee@mahaurja.com](mailto:eee@mahaurja.com), Web: [www.mahaurja.com](http://www.mahaurja.com)

ECN/2021-22/CR-43/441

8<sup>th</sup> February, 2022

**CERTIFICATE OF REGISTRATION  
FOR CLASS 'B'**

We hereby certify that, the firm having following particulars is registered with **MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA)** under given category as "Energy Planner & Energy Auditor" in Maharashtra for Energy Conservation Programme of MEDA.

**Name and Address of the firm** : M/s Engress Services  
Yashshree, 26, Nirmal Bag Society,  
Near Mukhtangan English School,  
Parvati, Pune - 411 009.

**Registration Category** : *Empanelled Consultant for Energy Conservation Programme for Class 'B'*

**Registration Number** : *MEDA/ECN/2021-22/Class B/EA-07.*

- Energy Conservation Programme intends to identify areas where wasteful use of energy occurs and to evaluate the scope for Energy Conservation and take concrete steps to achieve the evaluated energy savings.
- MEDA reserves the right to visit at any time without giving prior information to verify quarterly activities performed by the firm and canceling the registration, if the information is found incorrect.
- This empanelment is valid till 7<sup>th</sup> February, 2024 from the date of registration, to carry out energy audits under the Energy Conservation Programme
- The Director General, MEDA reserves the right to cancel the registration at any time without assigning any reasons thereof.

General Manager (EC)

# Engress Services

Yashashree, 26, Nirmal Bag Society,  
Near Mukhtangan English School, Parvati, Pune 411 009  
Tel: 09890444795 Email: [engress123@gmail.com](mailto:engress123@gmail.com)

Ref: ES/DAIT/21-22/01

Date: 8/5/2022

## CERTIFICATE

This is to certify that we have conducted Green Audit at Dr. Ambedkar Institute of Technology, Outer Ring Road, Mallathahalli, Bengaluru 560 056 in the Academic year 2021-22.

The Institute has adopted following Green practices:

- Usage of Energy Efficient LED Fittings
- Usage of Energy Efficient BEE STAR Rated equipment
- Installation of **4000 LPD** Solar Thermal Water Heating System
- Segregation of Waste at source
- Provision of Bio composting Unit for Organic Waste Management
- Good internal Roads within the campus
- Tree Plantation in the campus
- Provision of Ramp for Divyangajan
- Provision of Sanitary Waste Incinerator for disposal of Sanitary Waste
- Creation of awareness by Display of posters on Resource conservation
- Encouragement for Usage of E Vehicles

We appreciate the support of Management, involvement of faculty members and students in the process of Energy Conservation & making the campus Energy Efficient.

**For Engress Services,**

**A Y Mehendale,**  
Certified Energy Auditor  
EA-8192

## INDEX

Sr. No	Particulars	Page No
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3	Carbon Foot printing	12
4	Study of Usage of Renewable Energy	14
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I	List of Plants & Trees	20

## **ACKNOWLEDGEMENT**

We Engress Services, Pune, express our sincere gratitude to the management of Dr. Ambedkar Institute of Technology, Outer Ring Road, Mallathahalli, Bengaluru 560 056 for awarding us the assignment of Green Audit of their Bengaluru campus for the Academic Year: 2021-22.

We are thankful to all the Faculty members & Staff members for helping us during the field study.

## EXECUTIVE SUMMARY

1. Dr. Ambedkar Institute of Technology, Outer Ring Road, Mallathahalli, Bengaluru consumes Energy in the form of **Electrical Energy and Diesel** used for various gadgets, Office & other facilities

### 2. Present Energy Consumption & CO<sub>2</sub> Emission:

No	Parameter	Energy consumed, kWh	Diesel Consumed, Liters	CO <sub>2</sub> Emissions, MT
1	Total	610060	856	551.35
2	Maximum	89080	132	80.36
3	Minimum	47400	69	42.94
4	Average	65122.5	98.37	58.87

### 3. Various Majors Adopted for Energy Conservation:

- Usage of Energy Efficient LED fittings
- Usage of BEE STAR Rated equipment
- Installation of 4000 LPD Solar Thermal Water Heating System

### 4. Usage of Renewable Energy:

- The Institute has installed 4000 LPD Solar Water Heating System.
- The Equivalent Electrical Energy generated by Solar System is **344448 kWh**.
- The Annual Reduction in CO<sub>2</sub> Emissions due to Solar System is **310 MT**

### 5. Waste Management:

#### 5.1 Segregation of Waste at Source:

The waste is segregated at source. Separate Dry and Wet waste collection bins are provided at key locations in the campus. It is then further disposed.

#### 5.2 Organic Waste Management:

The organic waste, like Leafy Waste generated is composted in a Bio Composting Unit and the compost is used for own garden in the premises.

#### 5.3 Liquid Waste Management:

The Institute is installing Sewage Treatment Plant, to treat the Liquid Waste. The treated water will be used for gardening purpose.

#### 5.4 E- Waste Management:

E Waste is collected in a separate Bin and is disposed of through Authorized Vendors.

#### 6. Rain Water Management:

The rain water falling on the terrace is run through the pipes channels and is used to increase the increase the underground water table.

#### 7. Green & Sustainable Practices:

- Maintenance of Well Maintained Internal Roads
- Well maintained Landscaped Lawn & Garden
- Tree Plantation in the campus
- Provision of Ramp for Divyangajan
- Provision of Sanitary Waste Incinerator
- Creation of awareness by Display of posters on Resource conservation
- Encouragement of Usage of E Vehicles

#### 8. Notes & Assumptions:

1. 1 kWh of Electrical Energy releases 0.9 Kg of CO<sub>2</sub> into atmosphere
2. 1 Liter of Diesel releases 2.68 Kg of CO<sub>2</sub> into atmosphere
3. 100 LPD Solar Water Heating System saves 1500 kWh Energy per annum
4. Hostel Operation Days in 21-22: 200 Nos

#### 9. References:

1. For CO<sub>2</sub> Emissions: [www.tatapower.com](http://www.tatapower.com)
2. For Energy saved by Solar Thermal Water Heating system: [www.mahaurja.com](http://www.mahaurja.com)

## **ABBREVIATIONS**

LED	:	Light Emitting Diode
KLD	:	Kilo Liters per Day
Kg	:	Kilo Gram
kWh	:	kilo-Watt Hour
kWp	:	Kilo Watt Peak
Qty	:	Quantity
MT	:	Metric Ton
CO <sub>2</sub>	:	Carbon Di Oxide

## CHAPTER-I INTRODUCTION

### 1.1 Objectives:

1. To study the present Energy Consumption
2. To compute the CO<sub>2</sub> emissions
3. To study usage of Renewable Energy & CO<sub>2</sub> Emission Reduction
4. To study Waste Management
5. To study Rain Water Management
6. To study Green & Sustainable Practices

### 1.2 Table No-1: General Details of Institute:

No	Head	Particulars
1	Name	Dr. Ambedkar Institute of Technology
2	Address	Outer Ring Road, Mallathahalli, Bengaluru

### 1.3 Google Earth Image:



Institute  
Layout

## CHAPTER-II

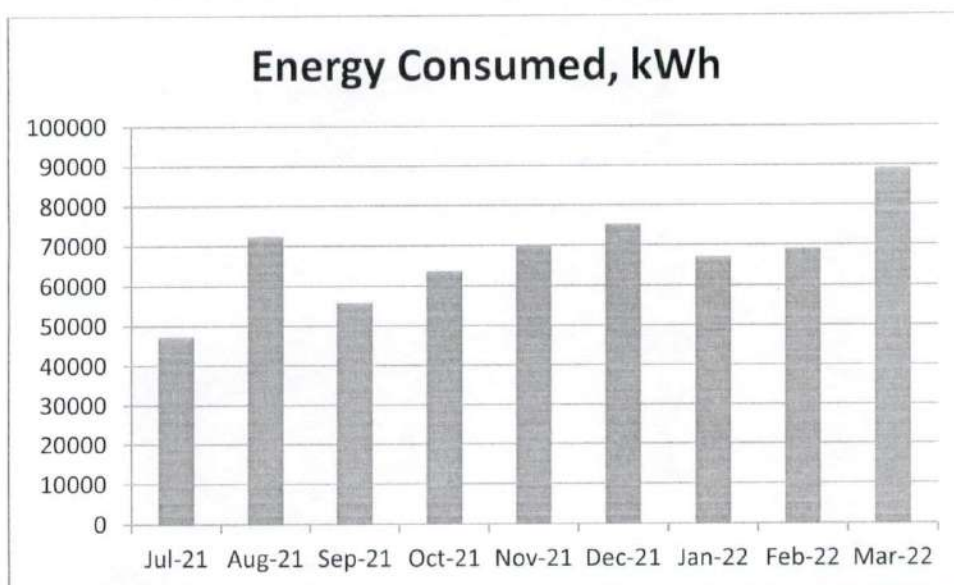
### STUDY OF ELECTRICAL ENERGY CONSUMPTION

In this chapter, we present the analysis of Electrical Energy & Diesel.

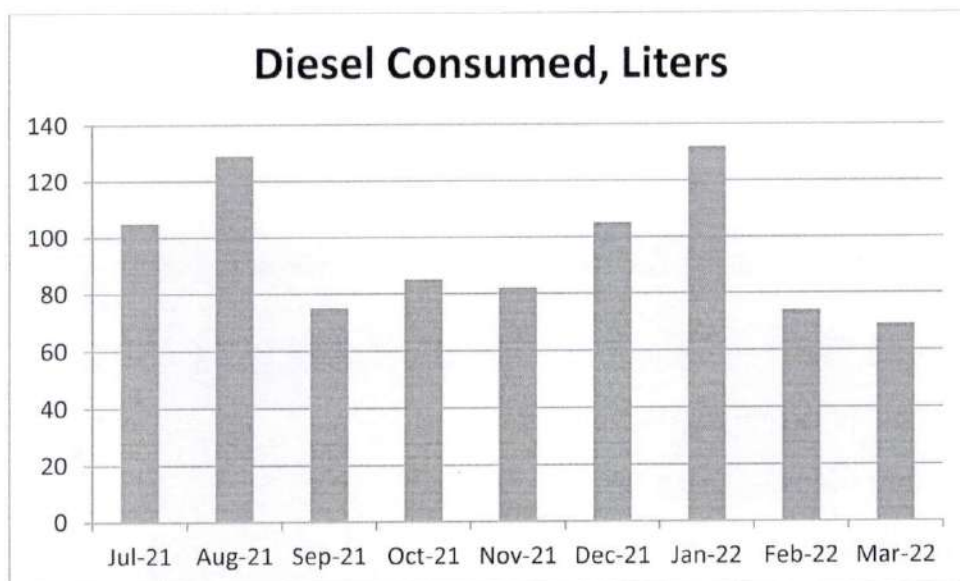
**Table No 2: Electrical Energy & Diesel Consumption: 2021-22:**

No	Month	Energy Consumed, kWh	Diesel Consumed, Liters	CO <sub>2</sub> Emissions, MT
1	Jul-21	47400	105	42.94
2	Aug-21	72400	129	65.51
3	Sep-21	55780	75	50.40
4	Oct-21	63720	85	57.58
5	Nov-21	70100	82	63.31
6	Dec-21	75320	105	68.07
7	Jan-22	67080	132	60.73
8	Feb-22	69180	74	62.46
9	Mar-22	89080	69	80.36
10	Total	610060	856	551.35
11	Maximum	89080	132	80.36
12	Minimum	47400	69	42.94
13	Average	65122.5	98.37	58.87

**Chart No 1: To study the variation of Month wise Energy Consumption, kWh:**



**Chart No 2: To study the variation of Month wise Diesel Consumption, Liters:**



**Table No 3: Key Parameters:**

No	Parameter	Energy consumed, kWh	Diesel Consumed, Liters
1	Total	610060	856
2	Maximum	89080	132
3	Minimum	47400	69
4	Average	65122.5	98.37

## CHAPTER-III

### CARBON FOOTPRINTING

**A Carbon Foot print** is defined as the Total Greenhouse Gas emissions, emitted due to various activities.

In this we compute the emissions of Carbon-Di-Oxide, by usage of the various forms of Energy used by the Institute for performing its day to day activities

The Institute uses Electrical Energy for various Electrical gadgets.

#### 3.2 Basis for computation of CO<sub>2</sub> Emissions:

The basis of Calculation for CO<sub>2</sub> emissions due to Electrical Energy is:

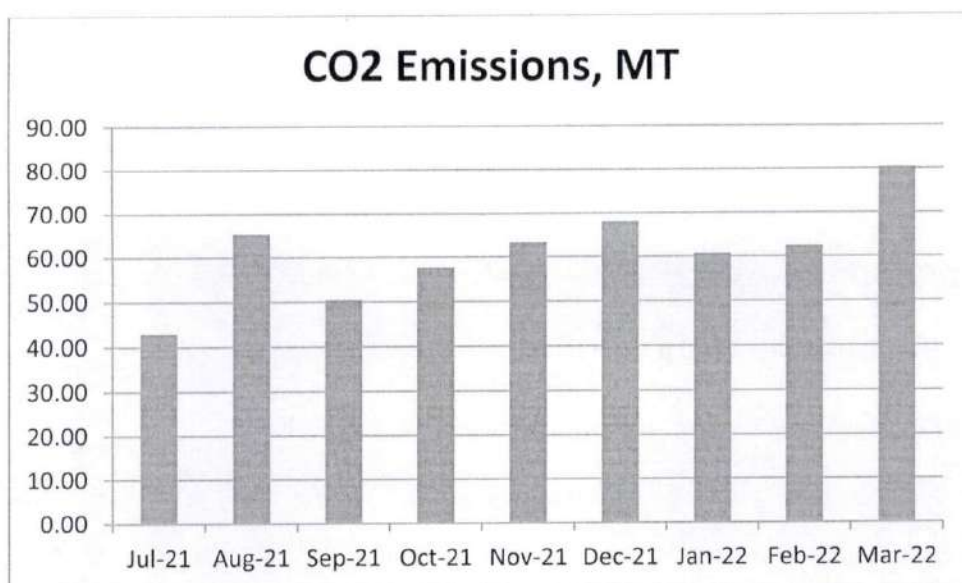
- **1 kWh** of Electrical Energy releases **0.9 Kg of CO<sub>2</sub>** into atmosphere
- **1 Liter** of Diesel releases **2.68 Kg of CO<sub>2</sub>** into atmosphere

Based on the above Data we compute the CO<sub>2</sub> emissions which are being released in to the atmosphere by the Institute due to its Day to Day operations

**Table No 4: Month wise CO<sub>2</sub> Emissions:**

No	Month	Energy Consumed, kWh	Diesel Consumed, Liters	CO <sub>2</sub> Emissions, MT
1	Jul-21	47400	105	42.94
2	Aug-21	72400	129	65.51
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11	Maximum	89080	132	80.36
12	Minimum	47400	69	42.94
13	Average	65122.5	98.37	58.87

**Chart No 2: Representation of Month wise CO<sub>2</sub> emissions:**



**Table No 5: Key observations:**

No	Value	Energy Consumed, kWh	Diesel Consumed, Liters	CO <sub>2</sub> Emissions, MT
1	Total	610060	856	551.35
2	Maximum	89080	132	80.36
3	Minimum	47400	69	42.94
4	Average	65122.5	98.37	58.87

## CHAPTER-IV

### STUDY OF USAGE OF RENEWABLE ENERGY

In this Chapter, we study the usage of Renewable Energy and compute the reduction in CO<sub>2</sub> Emissions. The Institute has installed Solar Water Heating System of Capacity 4000 LPD at the Hostel block.

**100 LPD** Solar Thermal Water Heating System saves **1500 kWh** of Electrical Energy in one Year.

In the following Table, we present the reduction in CO<sub>2</sub> Emissions.

**Table No 6: Computation Annual Reduction in CO<sub>2</sub> Emissions:**

No	Particulars	Value	Unit
1	Solar Water Heating System at Hostel Block	4000	LPD
2	Energy Saved by 100 LPD Solar Thermal System in 365 Days	1500	kWh
3	Energy saved by 1500 LPD System in 1 Year = $4000 \times 1500 / 100$	60000	kWh
4	Actual Usage Period in 21-22	200	Nos
5	Energy saved in 200 Days of operation in 21-22 = $200 \times 60000 / 365$	32877	kWh
6	Equivalent Electrical Energy saved by 2500 LPD System	<b>32877</b>	<b>kWh</b>
7	1 kWh of Electrical Energy is equal to	0.9	Kg of CO <sub>2</sub>
8	Annual reduction in CO <sub>2</sub> Emissions in 19-20 = $6 \times 7 / 1000$	<b>30</b>	<b>MT of CO<sub>2</sub></b>

#### Photograph of Solar Thermal Water Heating System:



## CHAPTER-V

### STUDY OF WASTE MANAGEMENT

#### 5.1 Segregation of Waste at Source:

The waste is segregated at source. Separate Dry and Wet waste collection bins are provided at key locations in the campus. It is then further disposed.

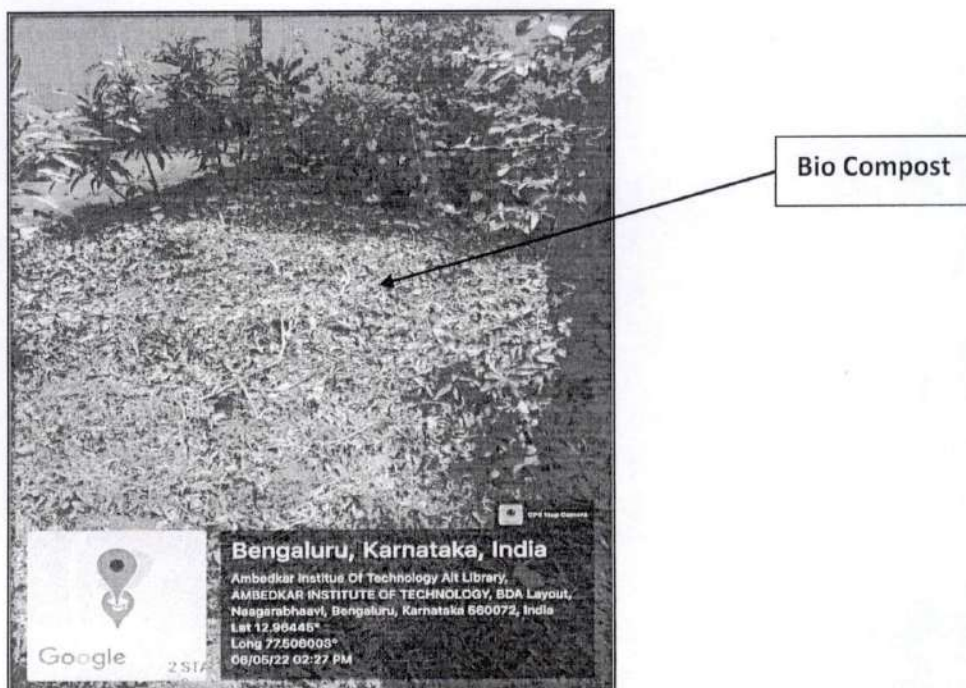
#### Photograph of Waste Collection Bins:



#### 5.2 Organic Waste Management:

The organic waste, like leafy waste generated is composted in a Bio Composting Unit and the compost produced is used for own garden.

#### Photograph of Bio Composting Unit:



### 5.3 Liquid Waste Management:

The Institute is in process of Installation of a Sewage Treatment Plant, to treat the Liquid Waste. The treated water will be used for gardening purpose.

#### Present Photograph of Sewage Treatment Plant Site:



### 5.4 E Waste Management:

The E Waste is collected in a separate E Waste collection bin and is disposed of through Authorized Agency.

#### Photograph of E Waste Collection Bin:

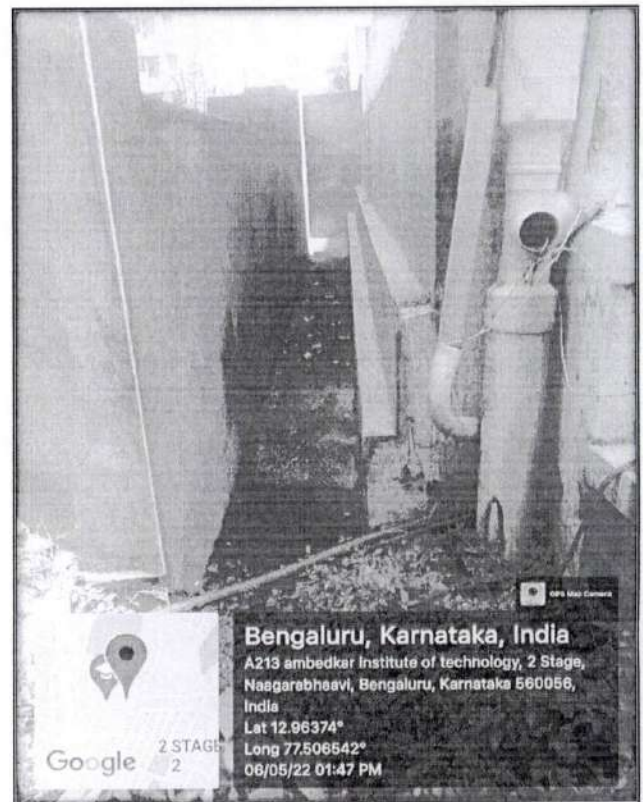
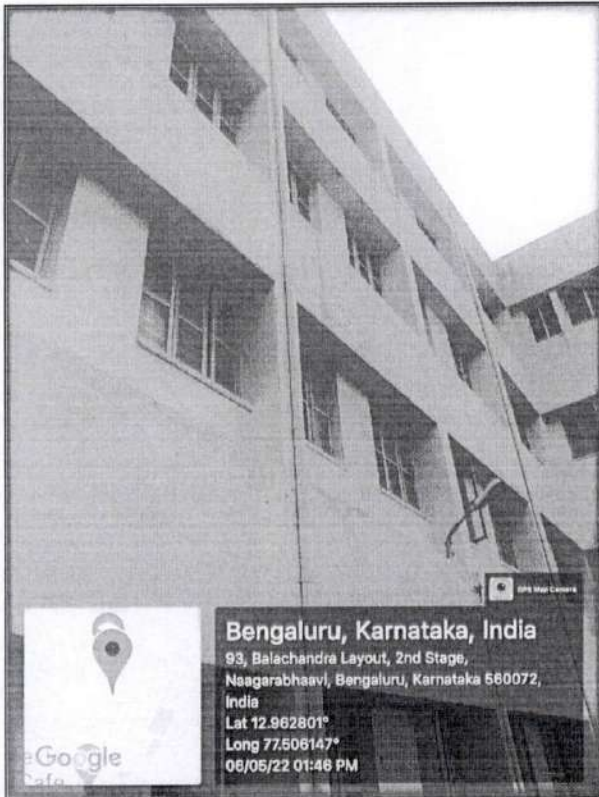


## CHAPTER-VI

### STUDY OF RAIN WATER MANAGEMENT

The Institute has installed Pipes from the terrace and the Rain water falling on the terrace is gathered and used to increase the underground water table.

**Photograph of Rain Water Collection Pipe and Channel Section:**



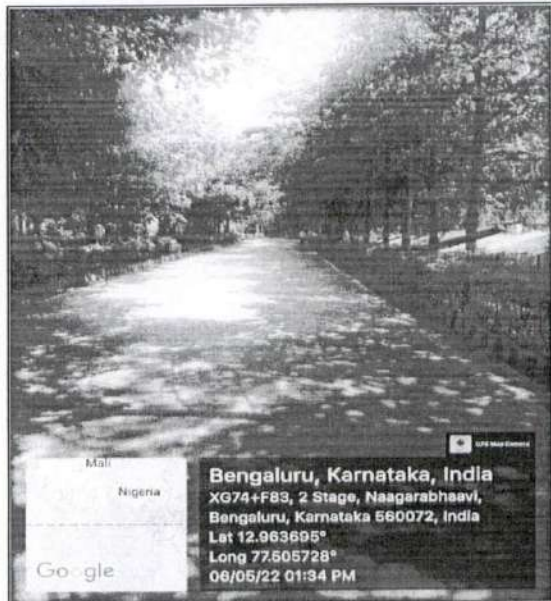
## CHAPTER-VII

### STUDY OF GREEN & SUSTAINABLE PRACTICES

#### 7.1 Pedestrian Friendly Roads:

The Institute has well maintained internal road as to facilitate the easy movement of the students within the campus.

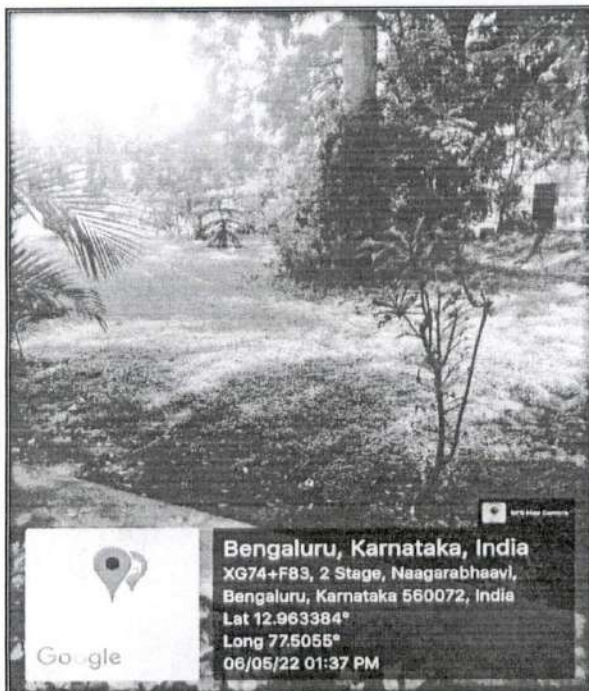
Photograph of Road within campus:



#### 7.2 Tree Plantation in the Campus:

The Institute has well maintained Garden, inside the campus.

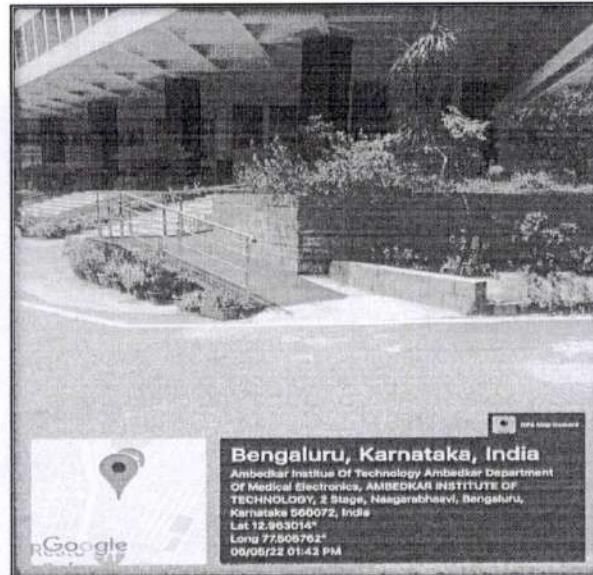
Photograph of Lawn and Tree Plantation:



### 7.3 Provision of Ramp for Divyangajan:

The Institute has made a provision of Ramp for easy movement of Divyangajan.

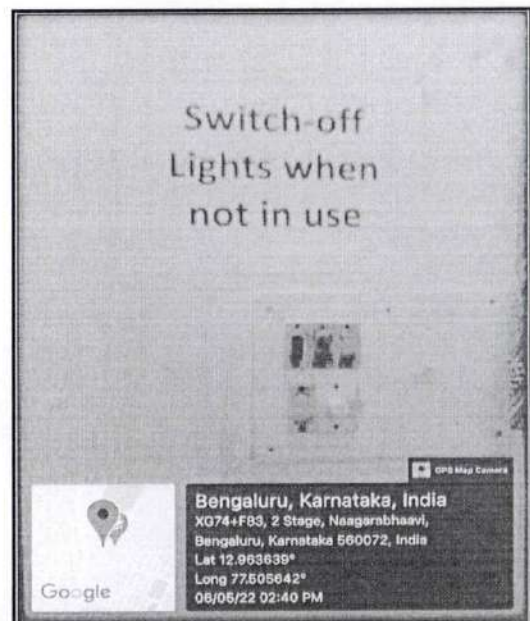
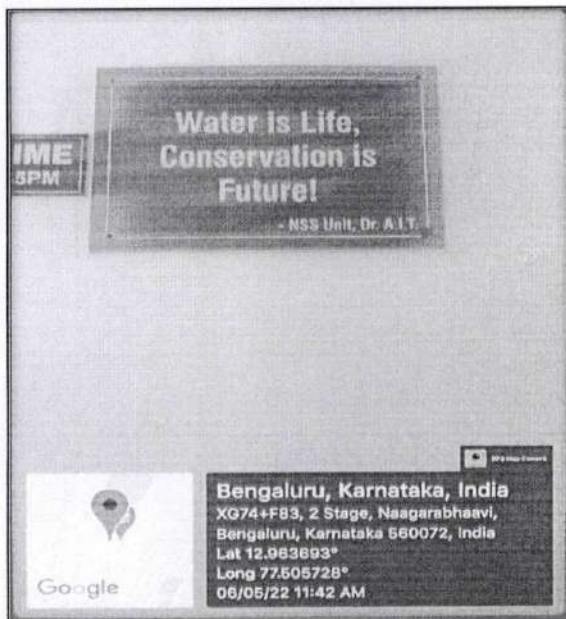
#### Photograph of Ramp:



### 7.4 Creation of awareness by Display of posters on resource conservation:

For creation of awareness, the Institute has displayed posters on Resource Conservation.

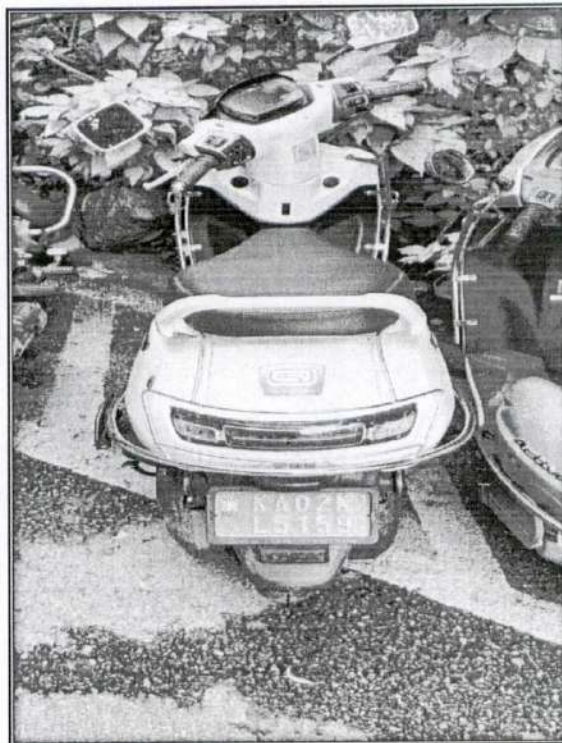
#### Photograph of Posters on Resource Conservation:



### 7.5 Promotion of E Vehicle:

The Institute is encouraging usage of E Vehicles by Stake holders. Some faculties are using the E Vehicles.

#### Photograph of E Vehicles:



### 7.6 Provision of Sanitary Waste Incinerator:

For disposal of Sanitary Waste, a Sanitary Waste Incinerator is installed in the campus.

#### Photograph of Sanitary Waste Incinerator:



## ANNEXURE

### DETAILS OF TREES AND PLANTS

#### List of Trees and Plants:

No	Common Name of Tree	Qty
1	Mango	100
2	Teak wood	1000
3	Coconut tree	10
4	Asoka	80
5	Neem tree	10
6	Silver oak	50
7	Beech tree	25
8	Forest Almond tree	20
9	Jackfruit tree	3
10	Banyan tree	1
11	Green Gulmohar	7
12	Palm tree	2
13	Total	1308

Saplings		
No	Species	Qty
1	Rose	500
2	Majesty palm	10
3	Privet	30
4	Dump cans	10
5	Lantenna	20
6	Ixora	7
7	Elogance	10
8	Hibiscus	12
9	Total	599

# **INTEGRATED ELECTRICAL ENERGY AUDIT**

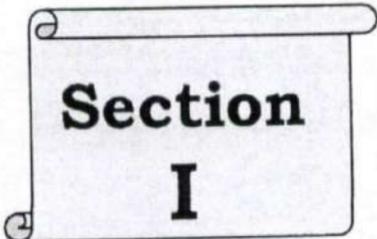
**at**



## **Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY**

5<sup>th</sup> April 2022 to 11<sup>th</sup> April 2022

**ELPRO ENERGY DIMENSIONS PVT LTD  
BANGALORE**

A graphic of a rolled-up scroll with the text "Section I" written on it.

**Section  
I**

# **EXECUTIVE SUMMARY**

## **Section 1 : The Executive Summary**

Dr. Ambedkar Institute of Technology is on a vast 20.30 acres of land having several buildings, lawns, trees etc. The total built up area of these buildings is 39,619 sq. meters. The Institute has 63 good ventilated and illuminated class rooms with Smart class facility, 13 Hi Tech Laboratories with latest equipments, drawing room, Data Center, Indoor sports complex, outdoor play grounds, and gymnasium. The institute's Library has 72,983 volumes of books with 16,574 titles, 112 National Journals and 34 International Journals. The library includes Air conditioned Reference section and a digital library. The Syndicate bank housed within campus sustains the need of staff and students. The canteen located in the college serves vegetarian food and chats. The campus has a Polytechnic college and an Industrial Training Institute which is also run by PVP Welfare Trust.

After due diligence the management of **Dr Ambedkar Institute of Technology, Bangalore**, entrusted the work of carrying out an **"Integrated Electrical Energy Audit"** of the above buildings to **Elpro Energy Dimensions Pvt Ltd**.

**Elpro Energy Dimensions Pvt Ltd** is an Energy Auditor Company with its head quarters in **Bangalore**. Elpro Energy Dimensions conducts energy surveys in client premises, carries out energy audits and recommends energy saving solutions. Elpro has a track record of over 100 energy audits. Elpro has also been rewarded for their work by both central government agencies and state government agencies.

As per the Energy Conservation Act 2001, **Energy Audit** has been defined as "the verification, monitoring and analysis of the use of energy including submission of technical report containing recommendations for improving energy efficiency with cost benefit analysis and an action plan to reduce energy consumption".

For this purpose, the following areas were studied in detail.

1. Energy Bills of past one year
2. Incoming Electrical Energy
3. Sub Circuits going out from the main panel Room.
4. Lighting System
5. Miscellaneous Connected Loads

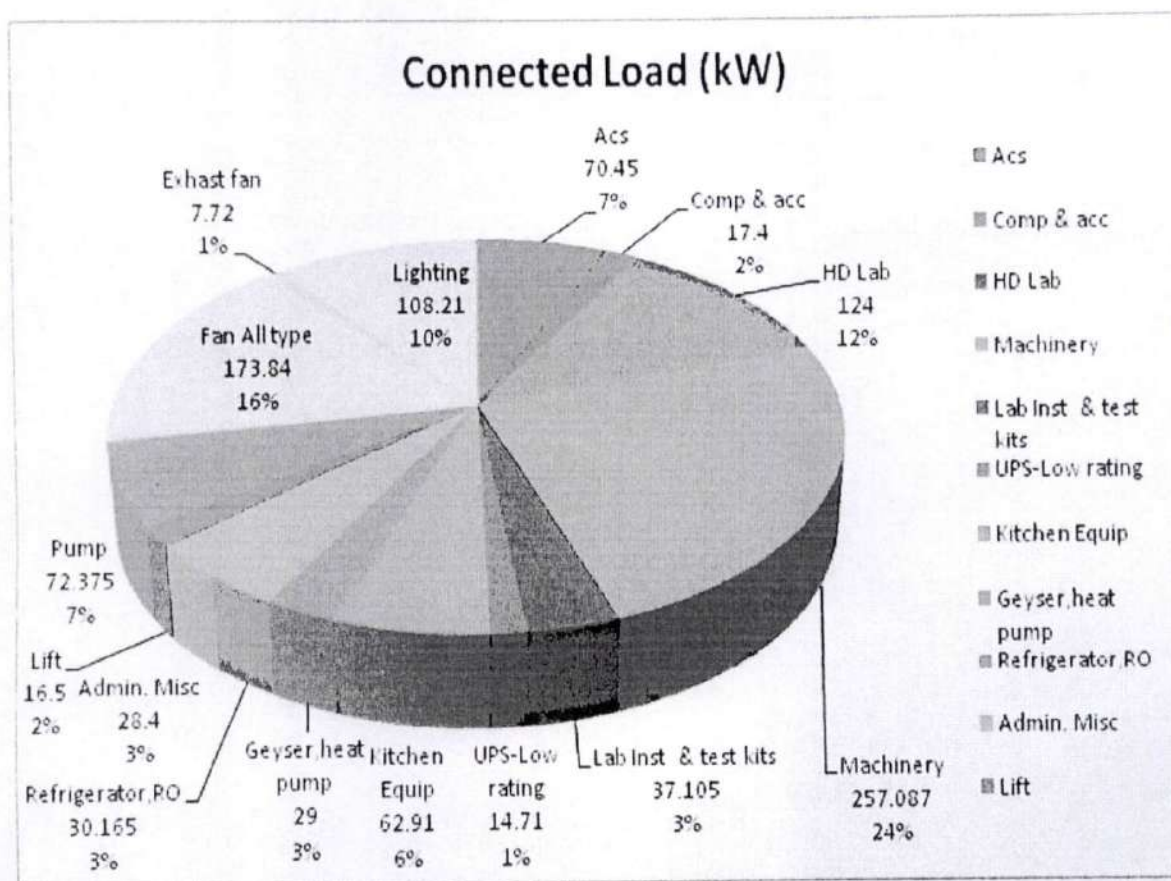
6. Air Conditioning System
7. The DG System
8. Water Pumping System
9. UPS System

The Electrical Energy Audit was carried out for a period of seven days from 5<sup>th</sup> April 2022 to 11<sup>th</sup> April 2022. The following points have been observed:

- The facility is purchasing power from BESCOM under Contract demand (CD) 350 kVA and Tariff Plan 1HT2C1
- The facility is paying for EB power at tariff of Rs7.20 per kWh, for their consumption and Rs 9.35 per kWh for their Sub-Metered Bank tenant
- The monthly average consumption of the facility was 63,400 units, which is less than that during the previous audit cycle by 22.7% (old consumption was 82,000 units) and the recorded demand was 218kVA as against 260 kVA that of the previous Audit cycle.
- The average monthly Bill of the facility is about Rs 5.57 Lakhs
- The facility has installed one 500kVA and one 250kVA distribution transformer to step down the incoming 11kV to 433V for mains supply to the entire campus.
- During this Audit study, the transformer (500kVA), had voltage swings from 407V to 439V (32V), which is far better than that during the previous Audit cycle, when the swing ranged between 390V to 450V (60V).
- The above supports the decision for the transformer change from 250kVA to the new 500kVA unit
- At the time of the audit only one of the transformers i.e. 500kVA was in service, and the second, old 250kVA, was waiting to be commissioned.
- The average consumption per day was worked out to be 2580 units as per the EB bills.
- In order to assess the power quality, the mains power incoming from EB as well as the circuits outgoing from the LT room, were logged for around 23 electrical parameters like V, I, Pf, frequency, kW, kVA, kVAr, Ithd, Vthd, Max V, Max A, Min V, Min A, Voltage and Current Harmonics, etc in each of the three phases, and on the 3-phase system on a **normal working day**. Data samples for all the above parameters were taken at 5 second intervals for sufficient periods.

- The following have been observed pertaining to the Main Incomer EB:
- The incoming voltage is high sometimes peaking to about 254V this has to be corrected
- The average power consumption was about 144kW.
- The power factor is good, and was at 0.985.
- A consumption of 3330 units was recorded on the day of the audit.
- The following are observations and recommendation w.r.t. the outgoing feeders:
- Loads are unbalanced, hence need to be balanced.
- Varying loads noticed in some outgoing feeders, this needs to be investigated.
- Harmonics currents are present; they have to be mitigated with suitable filtering devices.
- The energy has been estimated as being consumed in the following categories:

**Fig1: Energy Consumption – Category-wise**



- The inventory of the various energy consuming loads in the facility shown above indicates that it totals to around 1050 kVA. Note that this is the total connected load, though the sanctioned load is only 350kVA.

- The following Load types have been reviewed in detail and their inventory taken:

**Table 1: Connected Load details**

Load Category	Qty	Load (kW)
Air-conditioners	45	70.45
Comp & acc	147	17.40
Heavy Duty Lab Equip	58	124.00
Machinery	160	257.09
Lab Inst. & test kits	437	37.11
UPS-Low rating	19	14.71
Kitchen Equip	43	62.91
Geyser, heat pump	10	29.00
Refrigerator, RO	49	30.17
Admin. Misc	52	28.40
Lifts	3	16.50
Pumps	18	72.38
Fan All types	2132	173.84
Exhaust fans	71	7.72
Lighting	6008	108.21
<b>TOTAL</b>	<b>9252</b>	<b>1049.87</b>

- A review of the lighting load indicates that the lighting feeder and the power feeder going to the labs etc are common.
- A review of LED Vs CFL/TL is given below

**Table 2: Lighting Load Details**

Type	Quantity	kW
LED	1558	19.79
CFL	350	15.20
TL	4077	72.86
Others	19	1.27
Total	6004	109.11

**Table 3: Scope for savings**

TYPE	% wise in	
	Quantity	kW
CFL Vs Total	5.83%	13.93%
TL Vs Total	67.90%	66.77%

- A review of the lighting indicates that, though considerable amount of switchover to LEDs have taken place, still there is a considerable scope of further savings as seen from the above Table 3. Still 73% in quantity or 80% load wise are either CFLs or Tube-lights amounting to 88kW in 109kW of lighting load.
- A review of the air conditioning in the Datacenter indicates that the ACs is oversized and that the SET temperature can be increased to 26oC.
- Review of the DG sets indicated that the DGs are under-loaded and the cost of generation was ranging between about Rs 30 to 32.50 (250kVA and 100kVA) per unit which is high.
- The current O&M procedures of the facility have also been reviewed, which is well organized.
- A thermal imaging of the switchgear in the facility was also carried out, The following locations showed slightly abnormal temperatures. These need to be attended at the earliest.

**Table 4: List of locations where abnormal temperature was observed**

Sl No	Location Area	Location ID	Image No	Temperature °C
1	LT Room	SJ Building	IV_00059	62.3
2	LT Room	250 KVA AMF panel	IV_00062	80.4
3	LT Room	100 KVA AMF Panel	IV_00080	60.4
4	LT Room	Capacitor Panel -2	IV_00084	78.6

Having analyzed the findings, the following ENCON measures are recommended. Some of these ENCON measures do not directly affect savings in terms of electrical energy but are more oriented to cost savings.

**Table 5: Summary Of Energy Conservation Methods**

Sl No	Energy Conservation Measure (ECM)	Investment Req'd	Savings per year	Savings per year
		Rs (Lakhs)	Units	Rs (Lakhs)
ECM1	Reduction in Voltage Tapping Of HT Transformer	0	3,170	2.88
ECM2	TOD Tariff	0	0	2.30
ECM3	Rebates for HT Consumers	0	0	0.17
ECM4	Roof top Solar PV System	115	232,600	17.96
ECM5	LED Lamps	25.5	316,201	21.20
ECM6	Timers For Exhaust Fans	0.32	8073	0.61
ECM7	Key Switches in Hostel Rooms	4.6	101,178	6.78

	<b>TOTAL</b>	<b>145.42</b>	<b>661222</b>	<b>51.9</b>
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In Conclusion the above list indicates that there is considerable potential to save electrical energy. The above list is a basket of viable options. Alternate options for the same facility have also been listed so as to compare the technologies. The short listed options from the above list should be implemented at the earliest.



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**As mandated by AICTE, the startup related activities should be carried out by the students themselves with minimal intervention from faculty members.**



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This document is about the Rules and Regulations governing the Incubation and Startup activities under the aegis of **Ambedkar Centre for Tech Startup (ACTS)** at Dr. Ambedkar Institute of Technology, Bengaluru.

This document is divided into three parts.

1. Pre-Incubation phase
2. Incubation phase
3. Startup phase.

This document provides clarity regarding the documents that needs to be submitted in each of the phases, the process that needs to be followed, the financial aspects, the intellectual property and equity holdings.

### **Pre-Incubation phase**

It is all about putting the idea on paper. The Project Coordinator has to fill the documents given and contact relevant authorities to setup an evaluation committee. The Project Coordinator has to convince the committee about his idea and get the funding.

### **Incubation Phase**

The Project Coordinator and the team has to start working on the prototype. The Project Coordinator with the help of internal mentor has to procure the items for implementing the project by going through the proper channel. The Project Coordinator has to come up with a working prototype, demonstrate it in front of other investors and secure the funding from external agencies.

### **Startup Phase**

If angel investors or any external agencies are interested and are willing to productize your prototype/idea then a company will be incorporated with equities for all the stake holders.

\* Project Coordinator is the student who along with his/her team proposes the novel idea to carry out the project and will be the contact person.



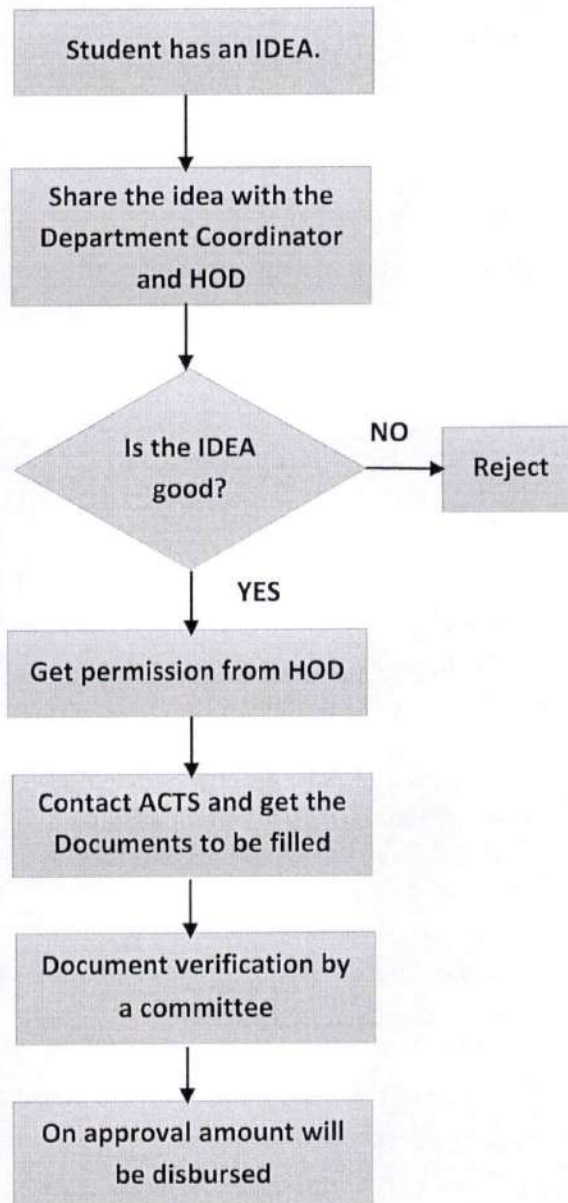


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### Pre-Incubation Phase

The Pre-Incubation phase can be summarized below.





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**Document - 1**

From,

Reg No: \_\_\_\_\_

Dept. of \_\_\_\_\_

Dr.AIT, Bengaluru – 56.

Date:

Through,

The HEAD,

Dept. of \_\_\_\_\_

Dr.AIT, Bengaluru – 56.

To,

The Principal,

Dr.AIT, Bengaluru – 56.

Dear Sir,

Sub: Permission to obtain documents related to startup activities.

I, \_\_\_\_\_ studying in the dept. of \_\_\_\_\_ would like to pursue an idea as part of Startup activity under ACTS - The Startup Cell.

I have discussed the idea with our HOD and the department startup coordinator and they have approved it in-principal. I like to inform through this letter that I'll build a team to investigate my idea. Hence, please consider me as the Principal Investigator and I'll be the focal person on behalf of the team.

Hence, I request you to direct the ACTS personnel to handover the relevant documents that need to be filled, so that I can pursue my startup activity.

I'll provide all the documents to the relevant authorities on demand and will also take care of the financial aspects for which I'm wholly responsible.

Sincerely Yours,





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### Document - 2

<u>Principal Investigator Details</u>		
<u>Sl.No.</u>	<u>Components</u>	<u>Details</u>
1.	Name	
2.	USN	
3.	Department	
4.	Semester	
5.	Date of Birth	
6.	Email ID	
7.	Mobile No	
8.	Postal Address	





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### Document - 3

#### Team Information

Sl.No.	Components	Details				
1.	Principal Investigator Name	Name	USN	Email	Mobile	Signature
2.	Team Members	Name	USN	Email	Mobile	Signature
	1.					
	2.					
	3.					
	4.					
	5.					
3.	Department Coordinator	Name	Email	Mobile	Signature	
4.	Internal Project Mentor	Name	Email	Mobile	Signature	
5.	Industry Mentor	Name	Email	Mobile	Signature	
6.	HOD	Name	Email	Mobile	Signature	

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### Document - 4

### Project Details

Title:
Summary of the Project Proposal: [in 100 words]
Description of the problem:
Review of existing literature/patents etc. (No more than One page)
Reasons for taking up the project [less than 100 words]
Objectives of the project (Brief and to the point) [in 100 words]
Methodology of implementation (No more than One page)
Challenges & Constraints
Relevance and Applications to the Industry/ Technology/ Agriculture/ Health/ Society etc.
Specify newness/uniqueness of the innovation (better performance/new features/improvements)
Work Plan and Time Schedule. Please give activity-wise break-up (Activities include design/prototype development/lab/bench scale production trials/test marketing/miscellaneous)
Likely Impacts (Please attempt to quantify)
Parameters for monitoring the effectiveness of the project
Deliverables



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**Document - 5**

**Purchase of Non-Recurring Equipment**

Requirement to fulfill the Objectives (Non-Recurring Equipment/Accessories etc.)

Sl.No.	Items permitted to be procured	Technical Specifications	Unit Price	Total Unit/Quantity required	Total estimated cost (including GST)





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### Document - 6

### Evaluation Committee Members

Sl.No.	Members	Member Name	Designation/Organization	Signature
1.	Department HEAD			
2.	Department Coordinator			
3.	Project Mentor (Internal)			
4.	Project Mentor (External)			

### Comments:

1. Can the project be sanctioned?
2. Does the project has any novelty in it?
3. Is there scope for IPRs (including Patents and Copyrights)?
4. Is the timeframe adequate?
5. Are the deliverables mentioned achievable?
6. Are the equipment mentioned relevant to the project? Can the equipment be permitted to procure?

Note: Attach the bio of the External Project Mentor

Date and Place:

Signature of the Department HEAD with Seal





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**Document – 7**  
**Business Plan**

Funding will be provided for the first year only. From second year, the funding should be obtained from external sources.

- 1) Do you have a business plan for taking innovation from lab to market?  
(Attach business plan in your own format)
- 2) Mention the plans to obtain the funding from external sources.
- 3) What level of funding is required for making innovation market ready?
- 4) Who are the target audience for your product?
- 5) Which is the target market for your product?
- 6) What is already available in market? What is the market potential? What value it would add in market
- 7) What is the target market size you are looking at in terms of dollars/rupees? Cite the source.
- 8) Is the product targeting only Indian market or International market?
- 9) Any major changes need to be incorporated for the International market?

**Note:** The following template can be used for creating a comprehensive business plan.

Though the sequence shown is not mandatory, the plan must cover all the sections listed in the template:

1.	Introduction / Company overview	6.	Marketing plan
2.	Concept / Proposition / Product description	7.	Management / Organizational chart
3.	Market opportunity	8.	Financials
4.	Competition survey	9.	Risks and de-risking strategies
5.	Development plan and milestones	10.	Appendix





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### Document - 8

### Purchase Committee Members

Sl.No.	Components	Member Name	Designation/Organization	Signature
1.	Principal/Head of the Institution			
2.	Department HEAD			
3.	Department Coordinator			
4.	Project Mentor (Internal)			

Comments:



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**Document - 9**  
**Incubation Phase**

From,

Reg No: \_\_\_\_\_

Dept. of \_\_\_\_\_

Dr.AIT, Bengaluru – 56.

Date:

Through,

The HEAD,

Dept. of \_\_\_\_\_

Dr.AIT, Bengaluru – 56.

To,

The Principal,

Dr.AIT, Bengaluru – 56.

Dear Sir,

Sub: Permission to procure equipment for the project.

I, \_\_\_\_\_ studying in the dept. of \_\_\_\_\_ would like to pursue an idea as part  
of Startup activity under ACTS - The Startup Centre.

I have put forward my idea in front of a committee consisting of our HOD, Department Startup  
Coordinator, Internal Project Mentor and External Project/Industry Mentor. They have given  
permission to pursue the project and have given in-principal approval to procure the equipment  
relevant for the project.

I like to inform you that I'm the Principal Investigator and I'll be the focal person on behalf of the  
team.

Hence, I request you to direct the concerned personnel to procure the equipment on our behalf.

Sincerely Yours,





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### Document - 10

### Progress Report

Progress Report to be submitted every four months and it should have the following components.

1. Name of the Project Coordinator:

2. Department:

3. USN:

4. Title of the Project:

5. Introduction:

6. Literature survey: References:

7. Objectives of the work:

8. Work carried out so far:

9. Results and Discussions:

10. Further Work to be carried out

11. Number of Papers/Publications/Patents/Copyrights out of the research work (presented/submitted), (if any): (Affix the list of papers/publications)

12. Suggestions from Internal Project Mentor, External Project Mentor, Department Coordinator and Department HEAD.

Signature of the Project Coordinator	
Signature of the Internal Project Mentor	
Signature of the External Project Mentor	
Signature of the Department Coordinator	
Signature of the Department HEAD	





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### **Startup Phase**

If the Project Coordinator/Student is successfully able to secure funding from external sources then following points are applicable.

1. All the stake holders (including Dr.AIT) should decide on the equity/stake in the company. For a seed money of less than ₹1,00,000 the startup company has to offer a minimum of 1% of share equity to the Industry mentor, 1% of share equity to internal mentor, 0.5% of share equity to department coordinator and 0.5% of share equity to the department HEAD as a consideration of mentorship and a minimum of 5% stake to Dr.AIT. If internal mentor and the department coordinator are same, then the equity share stands at 1% only. For a seed money of more than the above said amount, the equity stake of all the parties involved will be allocated based on negotiations.
2. Any personnel (Teaching/Non-Teaching staff) from Dr.AIT should be allowed to invest in the company and in lieu get the stake for the investment.
3. At this stage the representatives of all the stake holders, corporate lawyers and CAs will be made part of the process to frame the relevant rules and regulations.
4. In case of any conflicts of interests, the decision of the Institute shall be final and binding upon the parties.
5. ACTS – Dr.AIT does not guarantee success and/or feasibility of the technology transferred from the Institute. ACTS-Dr.AIT or any person representing them shall not be liable for any acts or omissions of the incubated/startup company.
6. However, in case of any such event the incubated/startup company shall do all that is required to hold ACTS – Dr.AIT or any person representing them harmless from any loss including damage, penalty.





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### **General Rules and Regulations**

1. Innovative, Game-changing and disruptive ideas needed. Not improving upon existing products.
2. ACTS – Dr.AIT may provide seed funding subject to the availability of funds/ grants/ schemes meant for this purpose. The seed funding will be sanctioned based on the eligibility criteria as decided by ACTS-Dr.AIT.
3. After execution of agreement, a separate project account should be opened. Both Project Coordinator and Department HEAD will be in charge of the account. Any amount generated from external sources should be deposited into this account.
4. ACTS – Dr.AIT will have the sole discretion to sanction or reject an application for seed funding and the decision of ACTS-Dr.AIT in this regard shall be final. ACTS – Dr.AIT is not bound to give any reason in case an application for seed funding is rejected.
5. Though seed funding may be sanctioned at the time of approval of the proposal, disbursement shall be subject to ACTS Coordinator's satisfaction over the suitable progress made by the Project Coordinator and the team.
6. Notwithstanding anything contrary contained herein, the Seed fund sanction and disbursal is subject to the approval of the Management, Principal and ACTS-Dr.AIT.
7. The grant shall not be utilized for computers, printers, scanners, UPS and other related expenditures.
8. The project coordinator has to constitute a "Purchase Committee" which includes Department HEAD as Chairman of the Purchase Committee with additional members as Department Startup Coordinator, Industry Mentor and Internal Project Mentor. The internal project mentor should assist the student in buying of equipment and should coordinate with the Stores Section of Dr.AIT during procurement process.
9. All issues, matters & procedures related to the procurement of equipment/ items etc. shall be recorded in the "Proceedings of the Purchase Committee" duly signed by all the members of the purchase committee.
10. The concerned Department HEAD, Project Coordinator and the Internal Project Mentor should check the progress.
11. The Department Coordinator himself/herself can be a mentor or another faculty member can also be a mentor.
12. Progress report should be submitted to ACTS-Dr.AIT every four months without fail and failure of which can lead to the termination of the project.
13. For the second year, funding will be continued only with the approval of the Management, Principal, the TEQIP coordinator and the Evaluation Committee. After which it'll be stopped, no matter what is the progress if they are not able to get the fund from external agencies.



14. For all the IPRs generated including papers published, patents, copyrights, trade secrets and trademarks, it is governed by the existing policies of Dr. Ambedkar Institute of Technology, Bengaluru. All original inventions shall be disclosed promptly by the inventors and assign each invention to the Dr. AIT or its authorized designee.
15. The Dr. AIT shall own each and every invention conceived, in whole or in part, during the course of any employment, research or scholarship activity of any Dr. AIT students, Research scholars, faculty, relating to the use of Dr. AIT resources.
16. At the end of the first year, there should be a working prototype, based on which the Project Coordinator and the team should bring in external funding.
17. The project coordinator needs to get the CV/Bio of the Industry Personnel. The Industry personnel preferably should have entrepreneurship background. This Industry personnel should also be able to work as mentor.
18. The Project Coordinator/Student should get familiarized with the kind of equipment available at different laboratories in the institution. The Project Coordinator should not procure equipment which is already available in the college.
19. ACTS – Dr. AIT, adheres to strict confidentiality throughout the application process. However, ACTS – Dr. AIT will not sign any 'non-disclosure' agreements.
20. ACTS – Dr. AIT has association with professionals for accounting, IP, legal and management expertise. The incubated/startup companies can avail their services.
21. One of the objectives of Incubation is to utilize the technical expertise and lab infrastructure of Dr. AIT. Therefore, every project coordinator who is offered incubation at ACTS – Dr. AIT has to select one faculty member from the Institute who shall act as a mentor and guide on the product development.
22. The Project Coordinator will be permitted to stay in the incubation phase for a period of one year. They may be granted a maximum of two extensions for 6 months each at a time at the sole discretion of the Management, Principal, Department HEAD and ACTS-Dr. AIT.
23. An incubated/startup company may exit under the following circumstances:
  - a) Completion of one year stay (if no extension granted).
  - b) Underperformance or non-viability of business proposition as decided by ACTS-Dr. AIT on a case to case basis.
  - c) Irresolvable dispute between stake holders as decided by ACTS-Dr. AIT on a case to case basis.
  - d) Change in promoters' / founders' team without concurrence of ACTS-Dr. AIT.
  - e) Any other reason for which ACTS-Dr. AIT may find it necessary for an incubated/startup company to leave.
  - f) Notwithstanding anything written elsewhere, the Management, Principal's and ACTS-Dr. AIT's decision in connection with the exit of an incubated/startup company shall be final and shall not be disputed by any concerned parties.
24. Travelling allowances for the Project Coordinator or the team is subjected to the existing rules and regulations of Dr. AIT.



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### Undertaking

We do hereby solemnly confirm that we have received, read & understood all the rules and regulations given along with this undertaking. We herewith undertake that we will abide by all the rules & regulations as stated in the document by Dr. Ambedkar Institute of Technology. We understand that Dr. Ambedkar Institute of Technology reserves the right to amend, modify and change the rules and regulations for smooth functioning and for the overall interest of the students and the Institution. We understand that failure to comply with these rules and regulations will result in the termination of the project. In case, the project gets terminated due to non-compliance of the rules and regulations as stated in the document then all the IPR's generated will be the sole property of Dr. Ambedkar Institute of Technology, Bengaluru. If any dispute arises between the parties concerned then it is governed by the Civil Laws and Civil Courts only subject to Bengaluru Jurisdiction.

Team Members	Institution Authorities
Project Leader Name:	Principal Name:
Signature:	Signature with Seal:
Team Member Name:	
Signature:	Dean (III):
Team Member Name:	Signature with Seal:
Signature:	
Team Member Name:	ACTS Representative:
Signature:	Signature:
Team Member Name:	Internal Mentor:
Signature:	Signature:
Team Member Name:	Industry Mentor:
Signature:	Signature:
	Department Coordinator:
	Signature:

---

## Document Version 1.0.0\*

12/02/2020

Prepared by

**Dr. Gowrishankar S.,**

**Startup Coordinator**

**Professor, Dept. of Computer Science & Engineering, Dr. Ambedkar  
Institute of Technology, Bengaluru – 560056, Karnataka.**

\*\*\*\*\*

**Guidelines for changes in the clauses**

- 1) The current Startup Coordinator should list which clause is being added or changed or removed.
- 2) If any changes were suggested by any member, then it should be documented by mentioning the name of the person and date on which it was approved.
- 3) The document version has to be changed according to the major and minor revisions.

\*\*\*\*\*

**Dr. Prabha R.,**

**Startup Coordinator,**

**Professor,**

**Dept. of Computer Science & Engineering,**

**Dr. Ambedkar Institute of Technology,**

**Bengaluru – 560056.**

**05<sup>th</sup> August 2021 – To Present.**

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## **Dr. Ambedkar Institute of Technology**

(An Autonomous Institution, Aided by Government of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi), Near Jnana Bharathi Campus, Mallathahalli, Bengaluru – 560 056

### **Policy for Industry Consultancy Services**

#### **1. Introduction**

The policy for consultancy envisions to develop a channel to provide knowledge and expertise to generate revenue for **Dr. Ambedkar Institute of Technology, Bengaluru - 56** herein after referred to as “**Dr.AIT**” from industry and other external institutions/sources for providing solutions to challenging problems. It shall also provide the framework for promoting academia-industry interaction for catalysing innovation, growth and for accelerating the development of new break-through. This policy shall ensure that consultancy undertaken by the faculty are consistent with the objectives of the institution and the costs are sustainable.

#### **2. Scope of Consultancy Services to be offered**

- 2.1. Consultancy Services shall be offered to Industries, Service Sectors, Govt. or private agencies, including National and International agencies in the niche areas of expertise available in the institution by any individual or a group of teachers of the Institution alone or jointly with the expert(s) from other institutions.
- 2.2. The services offered shall be along the lines of “Professional Services” and hence carry with them the obligations and ethical requirements associated with such services as indicated in the standard terms and conditions (Appendix 1).
- 2.3. Consultancy services offered shall cover a variety of activities such as Adequacy reports, Feasibility Studies; Academic investigation; Development of Technology; Monitoring and evaluation works; Training & development activities; Technology Assessment; Assessment of Designs; Material, Energy, Environmental, Manpower or any other type of Analysis and Audits; Product Design; Process Development, Software Development; General Trouble- shooting, Retrofitting Exercises, Intensive efforts for transfer of highly focused skills and expertise to select groups in specific organizations, vision and strategy statement and so on. Other extension activities may include action research, and carrying out surveys, documentation etc.
- 2.4. The routine academic activities like thesis/dissertation adjudication, question paper setting and moderation, examination, editorial, reviewer activities, book royalty, honorarium for Expert Committee meetings, invited lectures, invited training programmes, organization of conferences/workshops etc. shall not be covered under this policy.
- 2.5. Activities which are too complex to handle, by virtue of certain constraints inherent in any academic and research environment shall not normally be taken up irrespective of the availability of expertise and perceived needs of the clients.

- 2.6. All such activities of consultancies shall be taken up by the faculty members to an extent that it should not affect the teaching and research activities.

### **3. Classification and categorization**

Consultancy and related services offered shall be classified as:

- 3.1. **Individual Consultancy** means the consultancy that is brought to Dr.AIT by personal initiative of any faculty member(s) like expert advice and development of Projects. These types of projects shall be expertise-intensive and based on the expertise of the Consultant.
- 3.2. **Institutional Consultancy** that deals with consultancy received by the institution like Testing Projects and others. These types of projects shall be infrastructure intensive and based on usage of the Institution infrastructure and resources.

### **4. Administration of Consultancy services**

- 4.1. In case of individual consultancy, the consultant shall have the flexibility to chart out the overall administration of the project, costing of consultancy, and other administration activities of consultancy. The consultant shall require sending the information of the consultancy (s/he intends to take) to the Principal through the DEAN (III)'s Office and the Department HEAD along with the full details of the consultancy as per the prescribed proforma (*Form for undertaking consultancy Work*).
- 4.2. In case of institutional consultancy projects, the services shall be monitored by a Consultancy Administrative Committee consisting of the following:
- ❖ Institution HEAD/Principal
  - ❖ Department HEAD
  - ❖ Department Senior Professor
  - ❖ IIC Department Coordinator
  - ❖ DEAN (III)

The committee shall be responsible for overall administration of the project.

- 4.2.1. The committee shall workout the costing of Consultancy.
- 4.2.2. The committee shall approve the expenditure for the project.
- 4.2.3. The committee shall also act as selection committee for the project staff or other such requirements (if any) for successful and timely completion of the project.
- 4.2.4. The committee shall recommend necessary measures, if required, for successful completion of the work for the approval of the Principal/Competent Authority.

### **5. Project terms and conditions**

Each project shall be undertaken either under Standard Terms and Conditions (Appendix 1) or specific agreement. The work shall be taken up in good faith between the consultant and the client, the obligations and responsibilities of both parties being limited by the standard terms

and conditions or Memorandum of Understanding describing the details of contract. If, the execution of the projects involves non-disclosure agreements, it shall be carried out on the basis of terms and conditions mentioned in the contracts/MoU signed between the parties.

## **6. Eligibility for Undertaking Consultancy**

- 6.1. Consultancy assignments shall be taken up by any faculty members of the Institution.
- 6.2. The services of any Institution employee shall be utilized for the execution of the consultancy projects as per mutual understanding provided that it does not affect their primary functions and responsibilities to the Institution. In such cases, they shall be paid TA, DA and honorarium etc. as per the entitlement/rule. In case no rule is available for any particular level employee and/or any other activity, the expenditure for these shall be made by the consultant towards consultancy work with the approval of the Principal/Competent Authority.
- 6.3. The student(s) may be involved in consultancy projects provided it does not affect their academic commitments and performance. Remuneration may be paid to these students as per rules from the Consultancy Project.
- 6.4. There may be requirement of skilled and semi-skilled staff or daily labour for a project, the wages to them shall be paid as per rules from the Consultancy Project.

## **7. General rules**

- 7.1. Travel out of the campus on account of consultancy activities shall be undertaken with intimation to the Department HEAD. Students can travel with permission of the Department HEAD.
- 7.2. Consultancy projects may be initiated by requests/enquiries from individual or group of faculty members directly to the industry or through discussion between the industry and the Consultant(s).
- 7.3. When the enquiry is directly received by the Institution, the work shall be assigned to specific consultants or groups of consultants depending on their expertise, by the DEAN (III)'s office with the approval of the Principal/Competent Authority.
- 7.4. The consultancy charges, once finalized, shall not be negotiable. However, if the scope is altered by mutual agreement, a fresh estimate shall be considered.
- 7.5. It is desirable that for Preliminary Discussions/Site Visits in addition to travel and incidental expenses, leading to the generation of consultancy proposals may be charged as per the existing policy of Dr.AIT.
- 7.6. The Consultant shall be aware of the potential for the generation of Intellectual Property during the execution of projects. The Intellectual Property Policy of the Institution shall govern all decisions and actions concerning the generation, handling, protection and commercialization of the Intellectual Property. All rights pertaining to any intellectual property generated/created/invented in the due course of the project, shall be the joint property of Dr.AIT and the Client, if both the parties agree. The terms

- and conditions regarding transferring/assigning/selling these rights to the client shall be governed by a separate written agreement, if required.
- 7.7. The services of external consultants (especially retired Faculty/Research Scientists/Research Engineers) shall be utilized to a limited extent in order to provide comprehensive services to the clients. The consultant fees payable to External Consultants shall not exceed 10% of the share of the consultant.
  - 7.8. All necessary charges including transportation, taxes, demurrages etc. shall be borne by consulting agency/organization for transferring all the samples/goods/equipment etc. to the consultant(s) of the Institution.
  - 7.9. On completion of the project, the equipment, apparatus, software, computers & accessories bought under the agreement shall become the property of the Institution.

## **8. Costing of Consultancy Projects shall include:**

- 8.1. Consultant Fees (CF)
- 8.2. Charges for all the Personnel engaged in the work including laboratory personnel.
- 8.3. Operational Expenses (OE): These include expenses incurred on consumables, contingencies, testing, analysis, travel and daily allowance, remuneration for students and all other expenses related to the consultancy project.
- 8.4. Any other expenditure related to consultancy.
- 8.5. Capital Equipment (CE): This will include charges for the purchase of specific equipment/software for implementation of consultancy projects.
- 8.6. Service tax and other taxes as applicable shall be provided in the project cost.

## **9. Disbursement of consultancy payment**

- 9.1. All the consultancy payment shall be taken in the Institution Consultancy account for the purpose from where all payments shall be disbursed.
- 9.2. The disbursement of total amount received under consultancy project shall be executed by the accounts section – Dr.AIT, on written demand of the consultant and recommendation of the Department HEAD in case of individual consultancy involving Category-1. In Category-2 consultancy project/s, the payment to consultant shall be made on recommendation of the Administrative Consultancy Committee and approval of the Principal/Competent Authority.
- 9.3. *The total amount received for the consultancy shall be shared in a ratio of 60:40 between the Consultant(s): Institution respectively.* The consultant shall bear all the expenses related to the project from her/his share. The payment of the fee to the consultant(s) shall be made in advance or after the completion of the project as per the agreed terms. The consultancy amount is to be transferred to the Dr.AIT Consultancy Account.
- 9.4. If two or more consultants work jointly, the funds shall be divided as per mutually agreed terms in advance at the time of consultancy agreement.

- 9.5. The consultant can place purchase order for equipment through stores with prior approval from Department HEAD, DEAN (III)'s office, and Principal.
- 9.6. Earnings for Technology Transfer, Revenue Sharing and Royalty shall be governed by the Intellectual Property Policy of the Dr.AIT.
- 9.7. On completion of each project, the consultant shall submit undertaking that s/he has completed the work successfully and shall get a certificate from the industry/entity in this respect and attach with the disbursement form.
- 9.8. The Consultant shall maintain complete record of the consultancy work.

**For any queries, please contact:**

Dr.Gowrishankar S.  
DEAN (Industry-Institute-Interaction),  
Professor,  
Dept. of Computer Science and Engineering,  
Dr.Ambedkar Institute of Technology,  
Bengaluru - 560056.

## Appendix 1

### STANDARD TERMS AND CONDITIONS

1. **DECLARATION:** All work undertaken by Dr.AIT, as part of the project shall be in good faith and based on material/data and other relevant information given by the Client requesting for the work.
2. **CONFIDENTIALITY:** Due care shall be taken by Dr.AIT, to maintain confidentiality and discretion regarding confidential information received from the Client, including but not limited to results, reports and identity of the client.
3. **REPORTS:** Any test or other consultancy report given to Dr.AIT, shall be based on work performed according to available standards or open domain literature. In any event, this report may not be construed as a legal document, certificate or endorsement and may not be used for marketing of the products or processes, without prior consent from Dr.AIT and the client. The institute reserves the right to retain one copy of the report and use the results of the project for its internal teaching and research purposes.
4. **WORK PERFORMANCE:** Every effort shall be made to complete the specified work according to the planned time schedule. However, Dr.AIT, shall not be held responsible for delays caused beyond its reasonable control.
5. **CONFLICT OF INTEREST:** Dr.AIT shall take up work for other clients also in the same area, provided, to the best of the Institution knowledge, there is no conflict of interest in undertaking such projects.
6. **PAYMENT:** The payment of consultation charges to Dr.AIT, are to be made in advance or after the completion of the project as per the agreed terms, through a demand draft / crossed valid cheque, drawn in favour of The Principal, Dr.AIT, Bengaluru and sent to the Consultant. The charges shall also include any applicable tax as prescribed by the Government of India from time to time.
7. **TERMINATION:** The project work shall be terminated by either of any party by giving the other party a notice period of 30 days. However, both parties will meet any residual obligations in connection with the project.
8. **LIABILITY:** Dr.AIT shall not be held liable for any loss, damage, delay or failure of performance, resulting directly or indirectly from any cause, which is beyond its reasonable control (Force Majeure).

9. **INTELLECTUAL PROPERTY RIGHTS:** All rights pertaining to any intellectual property generated/created/invented in the due course of the project, shall be the joint property of Dr.AIT and the Client, if both the parties agree. Terms and conditions regarding transferring/assigning/selling these rights to the client shall be governed by a separate written agreement.
10. **RESOLUTION OF DISPUTES:** Any disputes arising out of the project shall be amicably settled by both the organizations. Any unsettled disputes may be subject to resolution as per the Indian Arbitration and Conciliation Act, 1996 (and up to date amendments) and within the Courts exercising jurisdiction in Bengaluru City.



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Bengaluru – 560 056

**Form for Undertaking Consultancy Work**

From,  
Name of the Consultant  
Professor,  
Dept. of Name,  
Dr.AIT, Bengaluru – 56.

Date: 22/06/2021

Through,  
The HEAD,  
Dept. of Name,  
Dr.AIT, Bengaluru – 56.

To,  
The Principal,  
Dr.AIT, Bengaluru – 56.

Respected Mam,

Sub: Approval for undertaking consultancy work

1. Name of Consultant(s):
2. Department(s):
3. Name of the entity offering consultancy project:
4. Address (including Contact details):
5. Type of entity requiring consultancy- Government, semi-government, Autonomous, private etc.
6. Brief description of the work

7. Cost estimate under the Consultancy Rules

Description	Cost Estimate
Consultant Fee (CF)	
External Consultant	
Charges for Personnel in Technical	
Services/hiring of workers	
Project Staff Wages	
Operational Expenditure	
Any other (Specify)	
Capital Equipment	
Total	
Service tax only for applicable items	
Total	

\* Specify Nil if not applicable

Consultant's Signature with Department Seal

HOD's Signature with Seal



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**CONSULTANCY DISBURSAL FORM**

From,  
Name of the Consultant  
Professor,  
Dept. of Name,  
Dr.AIT, Bengaluru – 56.

Date: 22/06/2021

Through,  
The HEAD,  
Dept. of Name,  
Dr.AIT, Bengaluru – 56.

To,  
The Principal,  
Dr.AIT, Bengaluru – 56.

Respected Mam,

Sub: Consultancy Disbursal

1. Name of Consultant(s):
2. Department(s):
3. Amount Received:

Total amount received will be shared in ratio of 60:40 between the Consultant(s) and Dr.AIT, Bengaluru. I undertake that the work has completed successfully and no issue is pending.

Signature of the Consultant

**Dr.AIT CONSULTANCY ACCOUNT DETAILS**

**Bank Name:** Canara Bank

**Branch:** Dr.AIT Branch

**Account Number:** 04862010044078

**Account Holder Name:** M/s Principal Consultancy AC

**IFSC Code:** CNRB0010486

**NOTE:** Accounts section will send the information back to the Principal, DEAN(III), Department HEAD and the Consultant after receipt of money.



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### **Form for Undertaking Consultancy Work**

From,  
Name of the Consultant  
Professor,  
Dept. of Name,  
Dr.AIT, Bengaluru – 56.

Date: 22/06/2021

Through,  
The HEAD,  
Dept. of Name,  
Dr.AIT, Bengaluru – 56.

To,  
The Principal,  
Dr.AIT, Bengaluru – 56.

Respected Mam,

Sub: Approval for undertaking consultancy work

1. Name of Consultant(s):
2. Department(s):
3. Name of the entity offering consultancy project:
4. Address (including Contact details):
5. Type of entity requiring consultancy- Government, semi-government, Autonomous, private etc.
6. Brief description of the work

7. Cost estimate under the Consultancy Rules

Description	Cost Estimate
Consultant Fee (CF)	
External Consultant	
Charges for Personnel in Technical	
Services/hiring of workers	
Project Staff Wages	
Operational Expenditure	
Any other (Specify)	
Capital Equipment	
Total	
Service tax only for applicable items	
Total	

\* Specify Nil if not applicable

Consultant's Signature with Department Seal

HOD's Signature with Seal



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Dept. of Name,  
Dr.AIT, Bengaluru – 56.

Date: 22/06/2021

Through,  
The HEAD,  
Dept. of Name,  
Dr.AIT, Bengaluru – 56.

To,  
The Principal,  
Dr.AIT, Bengaluru – 56.

Respected Mam,

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2. Department(s):

3. Amount Received:

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Signature of the Consultant

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# **Intellectual Property Rights (IPR) Cell – Dr.AIT**

## **Vision**

Encourage Intelligent Innovation and protection of the new creations to drive sustained and inclusive economic growth.

## **Mission**

- To create awareness and provide guidance to faculty, students and research scholars on the practices and the rules of institute regarding intellectual property rights and obligations within the frame work of the IPR policy of the institute.
- To safeguard the interests of inventor(s) in creation and commercialization of intellectual property with legal support wherever necessary.
- To promote an IPR culture compatible with the educational ethos of the institute.

## **Objectives**

The major objectives of the IPR policy of Dr.AIT are:

- To provide a good working environment to the faculty, students and research scholars of Dr.AIT for creation, protection, and commercialization of intellectual property and to stimulate innovation.
- To encourage research and a spirit of inquiry, thereby generating new knowledge.
- To facilitate the transfer of knowledge and technology to intending users to promote utilization of such resources for benefit of the society.
- To provide for an equitable distribution of economic gains resulting from new intellectual property among the inventor(s), department and the institute.
- To safeguard, review and manage the intellectual property so that it may receive adequate and appropriate legal protection against unauthorized use.
- To encourage students at all levels to develop patentable technologies and to provide financial assistance from Dr.AIT to the extent possible.
- To create awareness on IPR through conducting seminars, conferences, invited talks and lectures, and training programs among the academic community.

# **Policy**

## **1. Introduction**

This document sets out the **Dr. Ambedkar Institute of Technology** herein after referred to as “**Dr.AIT**” policy in respect of:

- the ownership of Intellectual Property created by its employees, students, academics (off roll) and research scholars
- the protection of Intellectual Property owned by Dr.AIT
- the commercial exploitation of Intellectual Property owned by Dr.AIT
- the distribution of revenue arising from the commercial exploitation of Intellectual Property
- the implementation of this Policy

## **2. Definition of Intellectual Property**

- 2.1. Intellectual Property (IP) is the term used to describe the product(s) of any creative endeavor – artistic, literary or scientific - that can be protected under legislation.
- 2.2. In the context of this policy, IP thus refers to all matter capable of being protected by patents, copyright, designs, database rights, topography rights, trade marks, plant breeders rights, know how and all other intellectual or industrial property rights, in each case whether registered or unregistered and including applications or rights to apply for them together with all extensions, divisional, continuations, continuations in part and renewals of them, and in each and every case all rights or forms of protection having equivalent or similar effect anywhere in the world. It also refers, however, to other intellectual assets such as inventions and discoveries and any other product or attribute of intellectual or academic activity (whether or not formal property rights subsist or are capable of subsisting therein) such as (but without limitation) know-how, knowledge and expertise, skills, techniques, and the results of experiments, tests, or calculations.

## **3. Principles of the Policy**

- 3.1. The majority of its resources and its activities are funded by public money. Dr.AIT therefore has a duty to ensure that those resources are accounted for and used appropriately.
- 3.2. To this end the general principles underlying this policy are:
  - 3.2.1. Dr.AIT owns the IP created by its employees, except to the extent this policy provides otherwise.
  - 3.2.2. Dr.AIT must obtain good value for any investment it makes in creating IP (in terms of its funds, facilities, staff or other resources) that is commercially exploited. Where, however, the use of those resources is insignificant in the creation of IP then Dr.AIT may waive its ownership rights.

- 3.2.3. Creators of IP that is commercially exploited and that generates income should receive a fair share of that benefit, as should the Institute and the relevant Department(s).
- 3.2.4. In respect of IP which Dr.AIT determines not to exploit, commercially or otherwise, Dr.AIT should have the right to use that IP for its own but should not unreasonably refuse to license or assign the IP to the Creator.

#### **4. Ownership of IP**

##### **Employees of Dr. Ambedkar Institute of Technology**

- 4.1. Dr.AIT claims ownership, unless agreed otherwise, of all IP arising:
  - 4.1.1. from work undertaken by employees of Dr.AIT in the course of their normal duties of employment.
  - 4.1.2. from work undertaken by employees of Dr.AIT outside of their normal duties of employment that makes more than incidental use of the Dr.AIT's resources.
  - 4.1.3. from work developed under a contract between employees and Dr.AIT.
  - 4.1.4. from work developed in the course of research or other activities sponsored by Dr.AIT.
  - 4.1.5. from work developed in the course of research or other activities sponsored by an external body, subject to any agreement with that external body.
- 4.2. Dr.AIT recognizes the following exceptions to its ownership of IP which apply unless otherwise agreed:
  - 4.2.1. any material produced as an aid to teaching
  - 4.2.2. conference and seminar papers
  - 4.2.3. publications such as books, book chapters, journal articles
- 4.3. With regard to these exceptions, Dr.AIT shall be granted an unconditional, perpetual and irrevocable right to copy, use and modify these materials for all purposes connected with Dr.AIT. The rights relating to 4.2.1 shall be exclusive during the term of employment and non-exclusive thereafter. The rights related to 4.2.2-3 shall be non-exclusive.
- 4.4. With respect to the production of items specified in section 4.2, where Dr.AIT has invested support in terms of financial resource, materials or time to the member of staff, there will be an apportionment of any royalties or revenues which accrue from the commercialization according to the proportions identified in section 7.3 of this policy. An example would be the production of a textbook or set of teaching materials produced by an individual or group of staff who had been supported by Dr.AIT in the production or commercialization through a period of project leave, investment in the commercialization or by providing a period of lighter duties.
- 4.5. Students generating IP in the course of their academic studies and/or research own that IP in their own right.
- 4.6. Exceptions to this include (but are not limited to):
  - 4.6.1. A sponsored studentship where the sponsor has a claim on IP arising from the terms of the sponsorship.
  - 4.6.2. Where the student is part of a research team where the sponsor of that research owns any IP arising from that research.

- 4.6.3. Where a specific agreement has been made between the student and Dr.AIT to the contrary (e.g., the student has used Dr.AIT facilities and resources through an agreement with Dr.AIT that it shall own all or part of the resulting IP)
- 4.6.4. Where the student generates IP resulting from collaboration or work with an employee of Dr.AIT working in the course of his or her employment.
- 4.7. Where a Dr.AIT employee is concurrently registered as a student, the employee status takes precedence for the purposes of this Policy.

#### **Evaluation of IPR**

- 4.8. Screening of all requests for patent applications shall be done by the respective department(s) of the Inventor(s) in coordination with the IPR Cell.
- 4.9. An invention will be patented only if it has commercial value and viable for production and marketing.

#### **Academics and Research Scholars**

- 4.10. Academics or researchers who have an honorary association with Dr.AIT but are not employed by Dr.AIT are generally required to transfer any IP they create in the course of their honorary activities to Dr.AIT, subject to the terms and conditions of their honorary contract.

#### **Filing of application in India**

- 4.11. The Inventor(s) of know-how / designs / instruments / devices / processes / specimens and other such IPs who want to get patents for the patentable IPs and / or transfer thereof for commercial exploitation will be required to make an application for the purpose to the Principal, Dr.AIT through IPR Cell Coordinator.

#### **Filing of application in Foreign Countries**

- 4.12. The institute may consider requests for registration of Patents in foreign countries based on the merit of the IP. If the institute decides not to file such a patent in any foreign country, the institute shall assign rights of IP in that country to the Inventor(s) for the purpose of such protection, if the Inventor(s) so desires.

#### **Working with third parties**

- 4.13. It is the responsibility of each individual who is subject to this Policy to ensure that IP arrangements with third parties drawn up in the course of, for example, collaborative research activity, contract research or consultancy work, do not conflict with their obligations to Dr.AIT, including the Dr.AIT's rights of IP ownership under this Policy.
- 4.14. In the course of consultancy agreements and sub-contracting arrangements with other institutions, it must be ensured that the Dr.AIT's rights are appropriately protected;

especially where there is a strong possibility that IP may be created during the course of the work.

- 4.15. For further advice on this matter please contact either DEAN (III)'s office or DEAN (R&D)'s office.

## **5. The Protection of IP**

- 5.1. Employees must disclose to Dr.AIT any IP that they create of which Dr.AIT is the Owner (under the term set out in this Policy at 4.1-2). In the first instance, employees should contact either DEAN (III)'s office or DEAN (R&D)'s office.
- 5.2. Employees must keep confidential at all times and must not publish or disclose any such IP, except as expressly permitted by Dr.AIT under this Policy or otherwise in writing.
- 5.3. It is the duty of the Employees to ensure that this IP is appropriately protected, although they should contact either DEAN (III)'s office or DEAN (R&D)'s office for advice and guidance in establishing this protection.
- 5.4. Some Intellectual Property Rights (IPR) arise automatically, i.e., Copyright and Unregistered Design Rights. Other forms of IPR, e.g., patents, trademarks, registered design rights, database rights, must be applied for. It is the responsibility of employees (notwithstanding the termination of their employment):
  - 5.4.1. to apply for and obtain in the sole name of Dr.AIT, (unless otherwise directed) a patent, trademark, registered design or other protection of any nature whatsoever, as appropriate to the IP, in any country throughout the world and, when so obtained or vested, to renew and maintain this protection.
  - 5.4.2. to resist any objection or opposition to obtaining, and any petitions or applications for revocation of, any such patent, trademark, registered design or other protection;
  - 5.4.3. to bring any proceedings for infringement of any such patent, trademark, registered design or other protection;
- 5.5. Dr.AIT undertakes to indemnify its employees in respect of all costs, claims and damages incurred, in connection with the discharge by its employees of any.
- 5.6. Where IP can only be protected by a Confidentiality Agreement since no formal IPR are capable of subsisting then employees should consult either DEAN (III)'s office or DEAN (R&D)'s office.

## **6. Commercial Exploitation of IP**

- 6.1. Exploitation of IP is taken to mean any sale, transfer, assignment or licensing of the IP and/or the supply, sale or licensing of goods or services involving the use of the IP.
- 6.2. Unless otherwise authorized, Dr.AIT shall determine if and how any IP that it owns shall be exploited, commercially or otherwise.
- 6.3. In the first instance, the creator(s) should contact either DEAN (III)'s office or DEAN (R&D)'s office to discuss the issue of exploitation.
- 6.4. If Dr.AIT decides that it does not wish to exploit any IP of which it has ownership, Dr.AIT will normally license or assign the IP to the creators where it can be shown to its

reasonable satisfaction that assigning ownership or licensing will be on terms which are consistent with the Dr.AIT's obligations for the use of public funds.

- 6.5. If the IP is commercialized by the creator, Dr.AIT will be entitled to a share of revenue in accordance with guidelines set out in sections 7.1-3 of this Policy.

## **7. Distribution of Revenue Arising from the Commercial Exploitation of IP**

- 7.1. Revenue here is taken to mean any capital and/or income received or receivable by the Dr.AIT in respect of the exploitation of its IP.
- 7.2. The following costs (including GST, where recoverable) will be recouped from the revenue received in relation to the IP:
- costs associated with protection of the IP
  - costs of defense of the IP
  - costs of marketing the IP
  - costs of any legal agreements associated with the IP
  - costs of any development work that is not externally funded or recoverable
  - any other costs necessary for the successful commercialization of the IP
  - overheads on all of the above
  - the risk cost of any capital sums applied at the appropriate market rates
  - any other expenses directly related to the obtaining or exploitation of the IP any payment due under a revenue sharing agreement to a third party involved in the research leading to the development of the IP
- 7.3. Any remaining revenue shall be apportioned as follows:
- 7.3.1. For IPR solely owned by Dr.AIT, half of the revenues shall be paid directly to the Inventor(s) and another half to Dr.AIT.
- 7.3.2. For IPR owned between Dr.AIT and organization/agencies, Revenue sharing will be as per the terms in the rules of sponsoring agency/Agreements. If no such terms are there then Policy 7.3.1 will be followed.

## **9. Renewal of Patents**

- 9.1. The institution will pay the Patent Fees for the first five years in all cases where patent is taken by the institution.
- 9.2. If it is a joint patent with a sponsoring agency, the patenting costs may be equally shared.
- 9.3. If the patent has been commercially exploited within the first five years, the institution shall pay the Patent Fees for the remaining period of the life of the patent.
- 9.4. If the patent has not been commercially exploited within the first five years, the institute and the Inventor(s) shall share the subsequent installments of renewal fees on 50.50 basis.
- 9.5. If the Inventor(s) does not show interest in such renewals, the institute can either continue the patent by paying the fees for its full term or withdraw application for the patent protection at its discretion.

## **10.Implementation of this Policy**

10.1.The responsibility for the implementation and monitoring of this Policy shall lie with the Principal, Dr.AIT and DEAN (III)'s office who may delegate that responsibility to another person.

## **11.Dispute Resolution**

11.1.An IPR Dispute Resolution Committee (IPR-DRC) committee shall be formed to address the concerns of the aggrieved party. In case of any disputes between the Institute and the inventors regarding the implementation of the IP policy and guidelines, the aggrieved party may appeal to the IPR Dispute Resolution Committee (IPR-DRC). If the inventor is dissatisfied with the decision of IPR-DRC, then a second appeal can be submitted to the Principal, Dr.AIT. The Principal's decision in this regard would be final and binding.

## **12.Jurisdiction**

12.1.All agreements to be signed by Dr.AIT will have the jurisdiction of the court in Bengaluru, Karnataka and shall be governed by appropriate laws of India. Further, Dr.AIT reserves the right to amend the IPR Policy as and when such a need arises/deemed fit and it abides all the stake holders.

**For any queries, please contact**

<b>Dr.Gowrishankar S.,</b> <b>DEAN (Industry-Institute-Interaction),</b> Professor, Dept. of Computer Science & Engineering, Dr. Ambedkar Institute of Technology, Bengaluru – 560056, Karnataka, India.	<b>Mr. Srinivasa A. H.,</b> <b>Institute IPR Cell Coordinator,</b> Associate Professor, Dept. of Computer Science & Engineering, Dr. Ambedkar Institute of Technology, Bengaluru – 560056, Karnataka, India.
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## **Dr. Ambedkar Institute of Technology**

(An Autonomous Institution, Aided by Government of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi), Near Jnana Bharathi Campus, Mallathahalli, Bengaluru – 560 056

**This document should be solely used for the purpose  
of filing patents.**



**Dr. Ambedkar Institute of Technology**  
(An Autonomous Institution, Aided by Government of Karnataka, Affiliated to Visvesvaraya  
Technological University, Belagavi), Near Jnana Bharathi Campus, Mallathahalli,  
Bengaluru – 560 056

**1) To be filled in by the inventor(s):**

**2) Tentative Filing Date**

**3) Filing Type (Provisional or Complete)**

**4) Inventor(s) Information:**

4.1. Inventor(s) Full Name

4.2. USN

4.3. Department/Year

4.4. Residential / Contact Address

4.5. Phone No. & Mail ID

**5) Applicant(s) Information:**

5.1. Applicant(s) Full Name:

Dr. Ambedkar Institute of Technology, Bengaluru 560056.

5.2. Contact Address:

5.3. Phone No. & Mail ID

**6) Invention Information:**

6.1. Key words about the invention (Please list as many as you consider are appropriate, that you would like to be added in the database to search and retrieve)

6.2. Technology Domain  
(Please Classify your invention in any of these Categories)

6.3. Sub Domain  
(Classify your Sub Domain also)

**7) Disclosure of the Invention:**

7.1. Field of the Invention:

7.2. Proposed title of the invention:

7.3. Related application/filing (If any):

**8) Background of the Invention:**

8.1. What is the problem addressed by your proposed invention?

8.2. How may it be approached according to the prior art/present knowledge?

8.3. What are the problems/limitations/drawbacks of the currently available product or process?

8.4. How was this problem or requirement addressed/solved before?

8.5. What is your proposed invention?

8.6. What is thought to be novel in your proposed invention?

8.7. Have you conducted a prior art or patentability search/analysis?

8.8. If yes, do you consider the search as extensive?

8.9. Please list any relevant patent/literature/article.

**9) Drawing(s) + BRIEF DESCRIPTION OF THE DRAWINGS:**

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- 9.1. Drawing(s) /Diagrams /Graphs /Pictures of the embodiment(s) of the proposed invention?
- 9.2. Diagrams/figures of the prior art (If required for reference)?
- 9.3. Proper labeling marked on the sketches/figures/flow charts (if you are using those in the description)?  
(Measurements are not required, unless they are essential to the operation of the invention.)

**10) Detailed Description of the Invention:**

(Try to add embodiments as much as you can. Try to add at least one example/illustration of your invention)

- 10.1. How does your invention work? (Not what does your invention achieve)
- 10.2. Describe the best method/system of your invention according to you.
- 10.3. What advantages are provided by your invention?
- 10.4. Briefly describe any efforts to make a prototype of your invention or to test your invention. In addition, summarize the results of any related experiments and/or testing conducted and highlights any results of particular significance.
- 10.5. Mention if any other novel alternative(s) to solve the problem(s)
- 10.6. You have described the best method/system of making and/or performing your proposed invention. Now consider the alternatives.
- 10.7. In what ways could the features/parts/process steps be changed or equivalent parts substituted without changing the basic invention?

- 10.8. Is there a generic description for any of the features/parts you listed (i.e., "fastener" instead of "Machine Screw", or "plastic" instead of "polypropylene")?
- 10.9. Could the functions of any of the features/parts be changed, combined, or eliminated?
- 10.10. What could be added to make the invention work better?
- 10.11. What could be left out?
- 10.12. Can your proposed invention be used for anything other than its preferred use?

Note: Include embodiments as much as you can. Include at least one example / illustration of your invention.

**Abstract: Following summary shall be edited to compile abstract**

**Glossary of Terms and their definitions:**

**Name:**

**Department:**

**Date:**

### Patent Evaluation Committee Members

Sl.No.	Members	Member Name	Designation/Organization	Signature
1.	Department HEAD			
2.	Senior Professor			
3.	Internal Domain Expert			
4.	Dept. IIC Coordinator			
5.	Institute IPR Cell Coordinator			

#### Comments:

1. Is the idea patentable?
2. If patented, does it have commercial value?
3. Is the inventor willing to commercialize the patent? If YES, how?

Date and Place:

Signature of the Department HEAD with Seal

NOTE: The filled patent application form should be shared by the inventor(s) with all the members of the committee. It the obligation of the committee members to maintain confidentiality and not to share the details with any person (employees of Dr.AIT or otherwise) under any circumstances.

**R&D Cell, Dr. Ambedkar Institute of Technology, Bengaluru - 560056**

R&D Cell is headed by the Dean of Research and Development at Dr. Ambedkar Institute of Technology (Dr.AIT), Bangalore. The various facilities, dynamic initiatives to promote research (both sponsored & academic research) and consultancy are unparalleled at Dr.AIT. The sparkling R&D culture fosters an innovative spirit to kindle the young minds at the campus under the able guidance and mentorship of motivated faculty members at all the departments. The support provided by our Chairman, Principal, Mentor, Deans, Heads of Departments, Professors, and Senior Faculty Members in the process of promoting research, filing patents is greatly acknowledged.

Dr. Ambedkar Institute of Technology (Dr. AIT), Bangalore is committed to creating a high-quality research ambience in every department of the Institute for the faculty and students. Dr. AIT aims to provide a research environment that will promote a culture of high-quality research, which is ethical, competent, accountable, and safe. This policy document on Research & Development activities at Dr.AIT addresses specific aspects of conducting Research & Development activities within the college in compliance with the Visvesvaraya Technological University (VTU) regulations on Research.

**PURPOSE**

The purpose of the Research Policy is to provide a research environment that will promote a culture of high-quality research, which is ethical, competent, safe, and accountable. The policy shall serve as an overall framework within which research activities may be carried out.

**OBJECTIVES**

**This research policy provides a broad framework to promote research, consultancy and innovation while upholding the code of ethics**

**The main objectives of the research policy are as follows:**

- To promote and accelerate the quality research work within the college and in collaboration with industry, other institutes and R & D organizations.
- To create an environment within the College to build a research culture and to ensure an efficient and effective support system to facilitate faculty and researchers in their research activities.

- Ensure publications in SCI, Scopus indexed/Web of Science journals with high impact factor.
- Individual Citation Score needs to be improved by publishing in reputed journals.
- To foster an environment of undertaking socially relevant research with a prospective commercialization value.
- Catering to the specific needs of Industry for Product/Process development.
- Establish Research Centres of Excellence within the college
- To motivate the faculty to write the research projects thereby enhancing the research funding from Govt agencies and industries.
- Providing linkages with different sponsoring agencies for the development of R & D programmes in the emerging areas of engineering and Technology.
- To carry out rural oriented research under AICTE, Unnat Bharat Abhiyan Program
- Encourage partnerships nationally and globally through interdisciplinary collaborations.
- To Ensure quality, integrity, and ethics in research.
- To integrate teaching and research

## **CUSTODIAN OF POLICY**

The implementation and updating of the Research Policy shall be carried out by Research and Development Monitoring Committee (RDMC) constituted in the college with Chairman, the Managing Trustee/Secretary as the Vice-Chairman, followed by the Principal as Convener, Dean(R & D) as member secretary and representatives from each department as members. The Research Policy will be monitored by a high-level committee, the Research Advisory Committee (RAC) to function under the Principal, Vice Principal, Dean(R & D), HOD's, faculty representatives, and external experts from industry and academia.

## **POLICY AND GUIDELINES**

### **1. Undertaking Research**

- Faculty members of Dr.AIT are expected to undertake research, leading to quality publications, presentations in reputed National/International conferences, generation of Intellectual property with commercial potential, and social relevance.
- Dr.AIT aims to provide a research environment that will promote a culture of high-quality research, which is ethical, competent, safe, and accountable.

- HOD of the concerned department, along with faculty researchers, is responsible for developing and maintaining an ethical and safe research environment within each department. Researchers must comply with relevant legislation, guidelines, policies, and directives issued by the Government of India and Karnataka and its relevant agencies concerning ethical and safe practices in research
- All Heads of the Department must regularly and diligently update the R&D information on the Institution website for department and submit the reports to R&D team.

## 2. **Obligations of faculty**

Research output will be considered as one of the criteria for faculty recruitment and promotion along with other academic responsibilities.

## 3. **Research Management**

Overall management of research activities may be coordinated by RDMC under the direct supervision of the Chairman, Vice-Chairman, Principal and Dean(R & D). RDMC shall be responsible for the overall functioning of the research activities within the Institute.

## 4. **Research Promotion Measures**

Research enjoys a prominent place in any higher education institution and Dr.AIT takes all possible measures to develop a research culture among students and faculty. The activities which may be undertaken under Research Promotion Measures are listed as under.

- Constitution of the RDMC at the college level to advise Principal/Management on research-related matters and monitor research activities in the college.
- Setting up of specific research and development center in each department to promote, streamline and execute research activities in the department. The HOD of the research wing in the department *de facto* shall be the department representative in the RDMC.
- The research wing in each department shall undertake industry/government-funded projects without, affecting in any way the regular academic activities of each faculty member in the college.
- Faculty and student research work in the college shall be published as Dr.AIT Technical Transactions which shall be numbered and catalogued by the Central Library.

Upload all the student research reports on the college website with special emphasis on the outcome and social impact of research. Each department shall collect one hard copy of the Project report and the same shall be submitted to the college library.

#### **5. Research Collaborations, Grants, and Funding**

- The college considers collaborations as an ideal tool for furthering research for the mutual benefit of the parties involved. Collaborations facilitating the sharing of resources, human and infrastructure are promoted by the college, provided it benefits the research endeavours of the college.
- Collaborations with universities abroad and premier institutions in India may be given special attention. However, due care must be taken so that such collaborations never result in any defame to the college and are in tune with relevant university statutes and regulations.
- The collaborating departments shall get prior sanction from the Chairman/Principal and RDMC for any type of collaboration with third parties.
- Copy of external grant applications has to be provided to RDMC as soon as the applications are submitted.

#### **6. Research Facilities**

Every year, an internal review of existing facilities must be made by HOD at the behest of RDMC. The recommendations may be submitted to the management for appropriate actions preferably at the end of each academic year through Dean (R&D) and the Principal.

#### **7. Conduct of Research by Students and Faculty**

- Research scholars that may include individual or teams of students and/or faculties, conducting research must comply with the provisions contained in the Research Policy of the College and the University.
- The supervisor and the research scholar should respect the human dignity and rights of all stakeholders, promoting shared ethical values, and fulfil all academic/research activities according to such values
- The research Supervisor of a research student shall be responsible for providing guidance to students on all matters of research practice and ensuring that students are

informed of the relevant University policies and procedures that affect the conduct of student research.

- Where a student is researching as part of a research team, the use and storage of research data, publication of research findings, confidentiality, or commercialization, or other agreements will apply to all members of the research group.
- A supervisor shall be entitled to have access to research data and other relevant information about the research of a student to undertake normal supervisory responsibilities and ensure compliance with this Policy and other University policies.
- To commit no form of plagiarism during art-of-work and preparation and dissemination of reports and research articles.
- Students are required to obtain prior approval from the college authorities to enter into any contractual agreement for commercial research or any technology transfer. Maintain confidentiality in respect of research data, methodology, and findings.
- To practice and promote fairness in research.
- To uphold the values of freedom, democracy, equality, and respect for diversity.
- To maintain the secrecy of the research findings/technical information and to avoid communication of any official document or information to others without permission

#### **8. Research Publications and Authorship**

- The researchers have the freedom to publish their results in any of the journals which appear in the UGC list. Publications in online journals, which attract publication charges are not allowed.
- The researcher who holds the overall responsibility for the research should authorize the publication of results. Authorization should cover the integrity of results (no plagiarism), protection of intellectual property rights, and appropriate credit for authorship for persons who are directly involved in experimentation, interpretation of data, and such direct involvement in work, for publication.
- Anyone listed as an author in a paper must accept personal responsibility for ensuring familiarity with the contents of the paper, and that they can identify their contributions to it. The practice of granting honorary authorship is against the guidance referenced above. Other contributions to the work like permission to publish, financial support should be suitably acknowledged.

- Any publication to journals other than RDMC publication or in Conference proceedings should be intimated to RDMC.

#### 9. Handling of research misconduct and fraud

In the event of misconduct, a disciplinary committee, on the instruction of the Principal, shall be formed to carry out an inquiry when academic dishonesty is reported against an individual/group. Suitable disciplinary action may be initiated, if found guilty, against such individual/group.

#### 10. Conflict of Interest

Researchers must disclose to the RDMC/HOD any affiliation with or financial involvement in any organization or entity with a direct interest in the subject matter or materials of the researcher.

#### 11. Policy Review

The Principal and Dean (R & D) shall initiate a review of this Policy as and when needed in association with RDMC.

#### Policy for Research and Consultancy Projects

The Institute follows a unique Incentive scheme to reward the faculty for the Research and Consultancy Project works carried out in the respective year. This scheme is introduced by the Management to impart research culture and to motivate faculty towards identifying innovations. The incentive scheme is as per the table below

#### Terms and Conditions:

- The consultancy work will be carried out under the Head (Principal) of Dr. AIT.
- The revenue generated will be deposited in the Institution's account. This is done to avoid misuse of funds. The Institute will provide the remuneration to the respective faculty as per the below chart, based on the revenue generated after the completion of every consultancy work.
- The selection of project staff shall normally be made as per the guidelines provided by the sponsoring agency and with the approval of the Principal through the Dean (R&D)
- Within the framework of a sponsored project, PIs shall be permitted to have a consultancy fee/honorarium, if the sponsor so approves.

- Faculty should motivate the students towards participation in industrial consultancy projects.
- Consultancy assignments must have a letter from the organization, clearly mentioning the work to be carried out, period and value of consultancy and the benefit of the consultancy to the Institution - both intellectually as well as financially. Proof of expenditure must be maintained by the consultancy incharge.
- The Head of the Department along with some senior faculty members shall then carry out a rigorous scrutiny at the Department level and ensure that their recommendations reach the R&D cell.
- Depending on the availability of funds under the Travel head and with the approval of the Principal, expenses (TA, DA, Registration Fee, etc.) for presenting papers in National Conferences in fields relevant to the project shall be given to PIs/CoIs from the project fund.
- The Government of Karnataka TA & DA rules will apply to the PIs and project employees/Students for all sponsored research/consultancy projects related to traveling and boarding expenses.
- All departments shall strive for recognition by National/International agencies through schemes/funding from agencies such as AICTE, DST, UGC, ICMR and DRDO.
- The project staff may be allowed to register for Full-time MS (By Research)/Ph.D programme, if he/she fulfils all the requirements prescribed by the Institute.

S.No.	Category	Name	Percentage of Share
1	Funded Research Projects from Govt. organizations, R & D Organizations, Industry, universities, etc.	Principal Investigator	2% of the Received Fund only upon submission of Utilization Certificate (UC)
		All Co-investigators	A total of 1% on Received Fund will be shared (only upon submission of Utilization Certificate (UC))
2	Consultancy and Testing services	Individual / Team	The ratio of 60:40 is shared between Institution and Individual / Team respectively
3	Patent (US / Overseas / Indian)	Author(s)	A ratio of 50:50 will be shared only on the commercialization of the Patent.
4	Supervising the doctoral degrees	Supervisor	

### **Policies for Journal Publications:**

To motivate the faculty members towards research and publishing their research findings in reputed journals with impact factors, incentives are given to faculty members.

- Affiliation must be Dr. AIT
- Applicable only for papers published in Science Citation Index (SCI) Journals.
- Faculties are requested to publish joint research papers with experts from Tier-1 Institutions / Industries.
- Student name should be the first author followed by guide name as the second author in the publication/patent in case of B.E, M.Tech Projects, and Ph.D. work.

S. No	Norms	Reward
1.	For the First and Second author	Rs. 15000/- each
2.	For the Third author and remaining authors	Rs. 5000/- equally shared
3.	Text/ Reference Book published by international publishers with an established peer review System	Rs. 25000/-
4.	Partial contribution to edited knowledge-based volumes published by international publishers.	Rs. 5000/-

Note: Exceptional contribution in Research Publication will be rewarded as Platinum Award and Gold Award categories, at the discretion of the Management.

### **Faculty Development & Research Interactions:**

To get expertise in a specific domain and promote the research interest, Dr.AIT is providing full financial help (Registration/course Fee and TA/DA) to faculty members/Students attending International Conference/Seminar in India and abroad. A faculty can avail of these benefits once in an academic year. TA/DA and Honorarium are allowed for the experts coming to Dr. AIT for Research Interactions and Collaborative Research works

### **PROCEDURE FOR ALLOTMENT OF SEED MONEY PROJECTS**

1. Invites applications from all the Faculty Members having with or without Ph.D. degrees.
2. The proposal is scrutinized in the office of the Dean (R & D).
3. Constitution of Committee for the award of Seed Money Project by the duly approved by the Management
4. Faculty members give their presentations on scheduled dates and times.

5. Based on the project proposal and presentation, the seed money budget is decided by the committee after proper justification given by the faculty member at the time of presentation.
6. Papers regarding the allocation of funds for seed money were sent to the Management for its approval
7. After approval from the Management, the Principal Order for the allotment of seed money projects was issued by the office of Dean (R&D) to the concerned faculty (Maximum amount for seed money project is Rs. 5.00 Lacs and project duration is three (3) years).

#### **Procedure for Ongoing Projects**

- Step 1. The Principal Investigator (PI) will be required to submit the Annual Progress Report (APR) in standard format at the end of every year, indicating the progress of the work accomplished during the concerned year.
- Step 2. Assessment of the project by the head of the concerned Research center
- Step 3. Review report received from the head of the research center
- Step 4. PI will be required to present the work before the RDMC
- Step 5. Recommendation by the members of the RDMC
- Step 6. Recommendation by the Dean(R &D) and the Principal
- Step 7. Approval of Hon'ble Secretary/Chairman, PVPWT
- Step 8. A letter from the office of the Dean(R&D) will be sent to the concerned faculty for further release of the grant.
- Step 9. Principal Investigators (PIs) shall arrange to maintain Procurement-cum-purchase Registers and Stock/Asset Register,
- Step 10. All expenditures shall normally be made within the proposed date of completion of the project.

#### **Responsibility of R & D cell:**

- To conduct seminars, workshops, conferences and training programmes for inculcating research interest among faculty.
- To encourage and motivate faculty for submitting proposals to externally funded research and development projects.
- To support interdisciplinary and multidisciplinary research, product design and development, publications in national and international journals of high standard.
- To facilitate collaborations with researchers from premier Institutions and to encourage joint research venture in the latest technology.

- To initiate and promote MoU with industries and R & D organizations for consultancy and collaborative research.
- To suggest peer reviewed national and international journals for subscription in central library
- To motivate students to present technical papers in National and International conferences and display projects in various competitions.
- To allow faculty to participate for seminars, workshops, FDPs and conferences to upgrade their knowledge.
- To instruct research scholars and faculty members to apply for projects.
- Discussion and review on department research activities, funded projects and consultancy activities.
- Conducting seminars and workshops on various research avenues.
- Encouraging submission of Journal Paper.
- Measures to motivate students to carry out innovative and socially relevant projects.
- Organizing the international and national conferences.

### **11. Outcome of Research:**

The faculty and students can publish or implement the following categories but not limited to the following:

- Book chapters
- Books (authored research, edited)
- Journal articles
- Reviews
- Conference proceedings
- Edited volumes of conference proceedings
- Computer software
- Audio-visual recording
- Working models
- Research reports
- Patent
- Technical reports
- Legal cases
- Encyclopedia entries
- Maps
- Editing and translations of major works
- Case studies
- Proposal of new theories
- Database
- Technical drawings

### Facilities available on Campus:

The research facilities available on campus are:

- i. A well-equipped library with more than 4467037 Books, and e-journals by IEEE ASPP, Springer link, J-Gate, ASME, McGraw Hill access and ASTM digital Library access with 80 plus printed national and international journals.
- ii. Dr.AIT has an Institution membership with IEEE, ACM.
- iii. Access to high quality technical content is available for reference through DELNET facility in the library.
- iv. Software like MATLAB, Tanner, Xilinx, Lab View, Solid Works, ANSYS, Multi Sim, Oracle and DB2 are available.
- v. Various Microcontroller kits are available and hardware for clustering, android based platforms, Wireless sensor network sensor nodes, ARM platforms, 3D Printers, Squeeze casting machine, Impact testing machine, Fatigue testing machine, Shot peening machine, Flexural testing machine and industry Robots for experimentation are available in the departments.

This policy stands recommendatory but not sacrosanct pertaining to incorporating dynamic changes and need based modifications.

  
Dean (R&D)  
Dr. Ambedkar Institute of Technology  
Near Jnanabharathi Campus  
BDA Outer Ring Road, Mallathahalli,  
Bengaluru-560 058