

Dr. Ambedkar Institute of Technology, Bengaluru
(An Autonomous Institution, Affiliated to VTU, Belgaum)



26.09.2016

Minutes of Academic Council meeting held on 23-09-2016 in Board Room at 11.00 PM

The members present:

Sl.No	Name	Affiliation	Designation
1	Dr. M. Mahadeva	Management Invitee	Managing Trustee/Secretary
2	Dr. C. Nanjundaswamy	Chairman Academic Council	Principal Dr. AIT
3	Dr. S.G. Gopalkrishna	VTU Nominee	Principal, NCE,
4	Dr. Mahanth Shetty	Industry Experts	Director, KARMIK,Pvt. Ltd
5	Dr. V. Ramachandra	Industry Experts	V.P, Ultratech Cement
6	Sri. Srinivasa Ramanujan	Industry Experts	Head(Academic Solution),TCS
7	Dr. B. Shivakumarswamy	Member	HOD, CV
8	Dr. L. Chandrasagar	Member	HOD, ME
9	Dr. B. V. Sumangala	Member	HOD, EEE
10	Dr. G. Rajendra	Member	HOD, IEM & COE
11	Dr. Meenakshi	Member	HOD, EI
12	Dr. Rajanna K.M	Member	HOD, ECE
13	Dr. B. Sivakumar	Member	HOD, TCE
14	Dr. Siddaraju	Member	HOD, CSE
15	Dr. B.S. Shylaja	Member	HOD, ISE
16	Dr. Shanthi K.J	Member	HOD, ML
17	Dr. Veenadevi,	Member	HOD, Chemistry
18	Dr. Sooryanarayana. B	Member	HOD, Mathematics
19	Dr. T. S. Reddy	Member	HOD, Physics
20	Dr. S.G. Ramachandraiah	Member	Assc. Prof, CV
21	Prasannakumar M	Member	ACOE
22	Dr. Vijayakumar. M.V	Invitee	Prof. CSE
23	Dr. M.N. Hegde	Member Secretary	Dean (Academic)

Leave of Absence:

1. Dr. B. Hanumaiah, Advisor, Dr. AIT, Invitee
2. Dr. Basavarajappa, VTU Nominee
3. Sri. Samath Raman, Industry
4. Dr. S.N. Sridhar, VTU Nominee
5. Dr. Seetharamu, Ex. Director, CPRI
6. Dr. T. R. Shashipriya, HOD, HSS
7. Dr. T. N. Raju, Assc. Prof, ME
8. Dr. V. Arunkumar, Prof. ME

Introduction:

Principal welcomed all the members to the meeting and briefed about the agenda to be discussed and informed Dean (Academic) to continue with the deliberation.

Dr. M. Mahadeva, Managing Trustee/Secretary, has noted the absence of Dr. B. Hanumaiah, Advisor, without official communications during the academic deliberation was not acceptable and mentioned to keep on record his displeasure. He is advised to be present during all academic meetings. The absence of all other internal members without specific official reasons are to be recorded and asked to inform them to be part of the decisions. He has appreciated the participation and contributions of the External members for contributing their academic expertise in bringing the academic excellence for the benefit of the stakeholder. He has also thanked Visvesvaraya Technological University for **granting institutional autonomy** and **Autonomous status to all PG programmes**.

Ratification of Minutes of the previous meeting:

Minutes of the previous meeting was read & confirmed with discussion on NFTC cases. All the members agreed that a fair chance shall be given to students and agreed to the modifications made therein.

The Dean explained about the **Academic Regulations for Post Graduate courses and MBA and MCA** and the proceedings of BOS for PG programmes was placed before Academic Council and sought the **Approval for the same**.

Dr. Gopal Krishna suggested to have 100 credits to M. Tech programmes, 150 credits for MCA and 100 credits for MBA. He also opined that different weightage for CIE & SEE may be given as in VTU (CIE: SEE = 20:80).

Dr. V. Ramachandra opined that giving 50:50 weightage for CIE and SEE may create an impression that passing in Autonomous system may be easier and also there is no need to give summer semester for the PG students. Summer Semester is required for the UG level students. He also doubted that the students who could not pass in regular semester, may find it difficult to pass in 08 weeks period and other colleges are not adopting Summer Semester for PG courses. It is better to avoid Summer Semester and students can concentrate on internship.

It was resolved to relook into the weightage (50:50) given to CIE + assignments and Semester End Examinations. The Principal informed the members that all HOD will discuss this issue in college council meeting and take appropriate decisions. He also opined that instead of Summer

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Semester, the students may be asked to attend contact classes for subjects, in which the students failed and shall be allowed to appear for the examination.

Academic Regulations (Tentative):

The Dean of Dr. AIT highlighted the features of the Academic Regulations for Post Graduate Programmes, which was prepared for the first time, as a result of the autonomous status given. The Secretary Dr. M. Mahadeva, expressed his opinion to get the information from other Autonomous Colleges, regarding their regulations and instructed the external members to kindly comment on the draft regulations and send their suggestions which can be incorporated and final version will be sent to them again, for their ratification.

The Dean explained the details of teaching and examination of PG programmes for the Academic year 2016-17. Sri. Srinivas Ramanujan, industry expert, opined that there is no need for theory subjects in the fourth semester, after doing internship programme and suggested that final year should be only for internship and project works.

The Principal stated to accommodate all theory and core subjects in I & II semesters, and during III & IV semesters, there will be internship and project respectively.

Dr. Mahanth Shetty opined to keep all core subjects in First semester, and internship in II & III semesters, and Projects in the IV semester. In this module, the students can interact with the faculty members so that students can make use of the benefit of internship to do project in the college and hence there will be knowledge sharing in the college. The College will also be benefitted.

Dr. V. Ramachandra suggested to have R&D or Industry interface courses during the III semester. However he has suggested that since the academic year is on and the classes are started, the major changes can be adopted during the next year. Dr. V. Ramachandra, finally suggested that during I & II semesters, confine the students for class room teaching, during III Semester, students can have industry interaction & internship under the guidance of faculty, and during IV Semester they can do the project work in the College.

PAN Dr. AIT Curriculum:

The Principal and the Dean have explained the features of the curriculum. They also explained that all the three components, Core engineering, Research & Development, and Industry needs are inbuilt in this model, where Core Academic component is covered during I and II Semesters, Industry component during the III Semester and Research & Development

component is covered during the IV Semester. Dr. V. Ramachandra suggested that unit weightage in the syllabus and curriculum on Core Academic as 50%, Research & Development as 25% and Industry needs as 25%.

The decision of teaching an exclusive paper on Research Methodology as part of the curriculum is appreciated by the experts.

It is resolved to accept the suggestion of having industry internship in III semester and carry out some project works at the same time. The main Project can be allowed during the IV semester is under the guidance of a faculty member. All PG departments are asked to go ahead with their scheme and syllabus for this academic year itself.

Sri. Srinivas Ramanujan suggested that TCS will come forward to guide for project works during IV semester and they can also undertake projects and internship for 02 groups of 05 students each. This will help the placement activities of the colleges. At this juncture the secretary has expressed deep sense of gratitude and thanked TCS and Sri Srinivas Ramanujan for taking interest in giving placement to large number of students of our college.

Members expressed their concern over 50:50 weightage for CIE and SEE. A suggestion was made to have 30:70 weightage to CIE and SEE to minimize the teachers' role and encourage students to earn better.

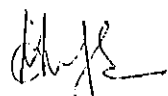
The Committee has accepted the suggestion to adopt 30:70 weightage to CIE and SEE and details of evaluation procedure may be worked out in the HODs and coordinators meeting.

Under any other points:

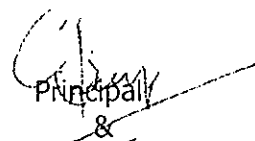
Increase of CIE eligibility marks from 20 to 30 for English subject in first year B.E that for Functional English Course, since there is no final examination, was considered and eligibility marks may be increased from 20 to 30 (i.e., to 60% minimum).

The request of HOD HSS the CIE eligibility marks for English course has been resolved to increase from the current 20 marks to 30 marks & there will be no SEE for this subject.

The Principal has concluded the meeting with vote of thanks



Dean (Academic)



Chairman of Academic Council

Dr. Ambedkar Institute of Technology, Bengaluru-56
(An Autonomous Institute, Affiliated to VTU, Belagavi)

Master of Computer Applications Program
(Accredited by National Board of Accreditation)



MCA I – IV semester Syllabus
Two years Duration
(2020 – 2022)

Dr. Ambedkar Institute of Technology, Bengaluru – 560056

Master of Computer Applications

Institute - Vision and Mission

Vision

To create Dynamic, Resourceful, Adept and Innovative Technical professionals to meet global challenges.

Mission

- To offer state-of-the-art under graduate, post graduate and doctoral programs in the fields of Engineering, Technology and Management
- To generate new knowledge by engaging faculty and students in research, development and innovation.
- To provide strong theoretical foundation to the students, supported by extensive practical training to meet the industrial requirements.
- To instil moral and ethical values with social and professional commitment.

DEPARTMENT - VISION AND MISSION

VISION

To create a quality human resource with good technical competence to face the global challenges.

MISSION

- To create a Centre of Excellence through industry institute interaction.
- To prepare students for utilizing more creativity, innovativeness and leadership Qualities.
- To inculcate a sense of commitment to the students towards socio-economic development of the nation

Program Educational Objectives

PEO 1: Graduates are prepared to be employed in IT industries and be engaged in learning, understanding, and applying new ideas.

PEO 2: To prepare students for utilizing more creativity, innovativeness and leadership Qualities.

PEO 3: To provide an opportunity to students to learn the latest trends in computer technology and make them ready for life-long learning process with leadership skills and corporate social responsibilities.

Program Outcomes:

PO 1: Ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modelling and design of computer based systems.

PO 2: Graduates will be able to demonstrate with excellent programming, analytical, logical and problem solving skills.

PO 3: Graduates will be able to design a computing system to meet desired needs within realistic constraints such as safety, security and applicability.

PO 4: An ability to devise and conduct experiments, interpret data and provide well informed conclusions.

PO 5: An ability to select modern computing tools and techniques and use them with dexterity.

PO 6: An ability to function professionally with ethical responsibility as an individual as well as in multidisciplinary teams with positive attitude.

PO 7: An ability to appreciate the importance of goal setting and to recognize the need for life-long learning.

PO 8: Develop and maintain medium to large scale application software using theoretical and applied knowledge of software engineering and project management.

PO 9: An ability to communicate effectively.

PO 10: An ability to understand the impact of system solutions in a contemporary, global, economical, environmental, and societal context for sustainable development.

PO 11: An ability to execute the project either individually or in a group.

PO 12: An ability to become an Entrepreneur in the field of information technology to create a value and wealth for the betterment of the individual and society at large.

Dr. Ambedkar Institute of Technology

(An Autonomous Institute affiliated to VTU, Accredited by NAAC with 'A' grade)

Department of Master of Computer Applications

**SCHEME OF TEACHING AND EXAMINATION OF MCA FIRST SEMESTER
(AUTONOMOUS) 2020-2022**

Sl. No.	Course Code	Course Title	Teaching hours per week			Examination			Credits	
			Lecture	Tutorial/ Seminar/ Assignment	Practical / Project	Duration in hours	SEE Marks	CIE Marks		Total Marks
1	20MCA11	Object Oriented Programming using Java	4	-	-	3	50	50	100	4
2	20MCA12	Data structures and algorithms	4	-	-	3	50	50	100	4
3	20MCA13	Web Technologies	4	-	-	3	50	50	100	4
4	20MCA14	RDBMS	3	-	2	3	50	50	100	4
5	20MCA15	Mathematical and Statistical modelling for Computer Applications	4	-	-	3	50	50	100	4
6	20MCAL16	Object Oriented Programming using Java Lab	-	-	2	3	50	50	100	1
7	20MCAL17	Data structures and algorithms Lab	-	-	2	3	50	50	100	1
8	20MCAM18	Mini Project in Web Technologies	-	2	2	3	50	50	100	2
9	20MCAB19	Principles of Programming (Bridge Course – Non-credit)	3	-	-	3	50	50	100	0
Total			22	02	08	27	450	450	900	24



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SCHEME OF TEACHING AND EXAMINATION OF MCA SECOND SEMESTER (AUTONOMOUS) 2020-2022

Sl. No.	Course Code	Course Title	Teaching hours per week			Examination			Credits	
			Lecture	Tutorial/ Seminar/ Assignment	Practical / Project	Duration in hours	SEE Marks	CIE Marks		Total Marks
1	20MCA21	Python Programming	4	-	-	3	50	50	100	4
2	20MCA22	Internet of Things	4	-	-	3	50	50	100	4
3	20MCA23	Software Engineering and Project Management	4	-	-	3	50	50	100	4
3	20MCA24	Research Methodology	3	-	-	3	50	50	100	3
5	20MCA25	Elective – 1	3		2	3	50	50	100	4
6	20MCA26	Elective - 2	3	-	-	3	50	50	100	3
7	20MCAL27	Python Programming Lab	-	-	2	3	50	50	100	1
8	20MCAL28	Internet of Things Lab	-		2	3	50	50	100	1
09	20MCAM29	Mini Project in Mobile Application Development	-	2	2	3	50	50	100	2
Total			21	02	08	27	450	450	900	26



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Department of Master of Computer Applications
MCA SECOND SEMESTER ELECTIVE COURSES

Elective – 1

S.No	Course Code	Course Title
1.	20MCA251	Cybersecurity
2.	20MCA252	Software Testing and Automation
3.	20MCA253	Data Science using R
4.	20MCA254	Programming using C#
5.	20MCA255	Ethical Hacking

Elective – 2

S.No	Course Code	Course Title
1.	20MCA261	Data Mining and Business Intelligence
2.	20MCA262	Enterprise Resource Planning
3.	20MCA263	Supply Chain Management
4.	20MCA264	Storage Area Networks
5.	20MCA265	Distributed Operating Systems



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Department of Master of Computer Applications
SCHEME OF TEACHING AND EXAMINATION OF MCA THIRD SEMESTER
 (AUTONOMOUS) 2020-2022

Sl. No.	Course Code	Course Title	Teaching hours per week			Examination				Credits
			Lecture	Tutorial/ Seminar/ Assignme	Practical / Project	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	20MCA31	Machine Learning using Python	4	-	-	3	50	50	100	4
2	20MCA32	Advances in Java Programming	4	-	-	3	50	50	100	4
3.	20MCA33	Network Architecture and Programming	3	-	2	3	50	50	100	4
4	20MCA34	Elective – 3	3		2	3	50	50	100	4
5	20MCA35	Elective - 4	3		-	3	50	50	100	3
6	20MCAL36	Machine Learning using Python Lab	-	-	2	3	50	50	100	1
7	20MCAL37	Advances in Java Programming Lab	-	-	2	3	50	50	100	1
8	20MCAM38	Mini Project	-	-	4	3	50	50	100	2
9.	20MCAS39	Technical Seminar	-	-	2	-	-	50	50	2
Total			17	00	12	27	400	450	850	25



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Department of Master of Computer Applications
MCA THIRD SEMESTER ELECTIVE COURSES

Elective – 3

S.No	Course Code	Course Title
1.	20MCA341	Digital Marketing
2.	20MCA342	Cloud Computing
3.	20MCA343	Big Data Analytics
4.	20MCA344	Programming using GOLang
5.	20MCA345	Fullstack Web Development

Elective-4

S.No	Course Code	Course Title
1.	20MCA351	Block Chain Technology
2.	20MCA352	5G Wireless Technologies
3..	20MCA353	Artificial Intelligence
4.	20MCA354	Software Architecture and Design Patterns
5.	20MCA355	Graph Theory



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Dr. Ambedkar Institute of Technology
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Department of Master of Computer Applications
 SCHEME OF TEACHING AND EXAMINATION OF MCA FOURTH SEMESTER
 (AUTONOMOUS) 2020-2022

Sl. No.	Course Code	Course Title	Teaching hours per week			Examination				Credits
			Lecture	Tutorial	Practical / Seminar	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1.	20MCAI41	MOOC Course and Industry Internship	-	-	2	3	50	50	100	5
2.	20MCAP42	Project Work	-	-	4	3	150	100	250	20
Total			-	-	6	6	200	150	350	25
Grand Total						350				3000



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