

Dr. Ambedkar Institute of Technology
Department of Mechanical Engineering

The documents enclosed are verified and approved.



HOD

Dept. of Mechanical Engineering

Department of Mechanical Engineering
Dr. Ambedkar Institute of Technology
Bengaluru - 560 056.

**A Report on Work shop on “Awareness on SAR Filling for NBA accreditation”
Conducted on 22nd & 23rd Oct 2018 in the Department of Mechanical Engineering, Dr AIT, B’lore**

Coordinators: Chandrashekar M. Associate Professor, A S Jayaram Associate Professor and N Shashikantha Associate Professor

A two days work shop on “**Awareness on SAR Filling for NBA accreditation**” was conducted in the department of Mechanical engineering, Dr Ambedkar Institute of Technology, Bangalore under TEQIP-III, from 22nd to 23rd October 2018.

Dr Vikram Singh, Professor and Dr Parul Tomar, Assistant professor of YMCA University of Science & Technology, Faridabad, Hariyana have participated in the work shop as resource persons to talk about NBA system and process of preparing SAR. Both the speakers arrived to Bangalore on 21st Oct 2018 in the same flight from New Delhi in the evening and reached NAAC, Bangalore to stay in the guest room arranged in NAAC.

On Day-1 i.e., 22nd Oct 2018 Monday morning after having breakfast both the speakers had come to the venue by 9.45 am, by 10.15 am work shop inaugurated by Dr Vikram Singh, Dr B Ravindra, HOD, Department of Mechanical Engg, Dr M N Hegde, Dean, Dr AIT in the absence of Principal by watering the plant instead of lighting the lamp as a mark of Go Green concept. The reason for Go Green concept was effectively explained by Mr A S Jayram, Associate Prof. Before this event work shop started with Invocation by Mr. B Mohankumar Asst. Prof through Devara naama. Mr. Tejesh S, Asst prof had given nice anchoring and Mr Chandrashekar Associate Prof welcomed the Chief Guests and Invitees. Mr. N Shashikanth Associate. Prof had given nice introduction about the speakers. Dr M N Hegde in his speech highlighted the significance and importance of Accreditation process in the technical college for future admission process, Dr Vikram singh in his speech highlighted the latest NBA formats and important stages in applying for NBA accreditation. This followed by Tea break.

In the first session, Dr Vikram singh presented PPT about introduction on outcome based Education and its significance as a part of Washington accord and this followed by Methodology and benefits of Prequalifies for accreditation process. At Noon Lunch was arranged in Hostel for the participants and guests. In the afternoon session Dr Parul Tomar explained File preparation and various Documentation required for SAR, this followed by Tea in the evening. An Interaction session held after Tea during this session number of queries raised by the participants had been answered by the speakers thus Day-1 ends with interaction.

On Day-2 i.e. 23rd Oct 2018 Tuesday morning session started with Dr Vikram Singh, he gave PPT presentation and hands on attainment calculation of COs and POs considering an example of his own college though Excel sheet. This followed by Tea break. Dr Vikram Singh continued Assessment and Attainment of POs and mapping procedure. Then lunch break was given. After Lunch break Dr Parul Tomar explained procedure to develop Course out come for subjects and examination reforms in Mapping of Question paper with Co & PO by the speakers. Tea break was given after spending more time for this session. Day-2 was concluded with valedictory function. Mr Rajesh M had given vote of thanks and Dr B Ravindra had given small mementos to the speakers as a token of respect Thus Two days work shop was concluded on 23rd evening.



Registration Form

One Day Workshop on

“Smart Materials & Structures”

27th March 2018, 9.30 AM

1. Name :

2. Designation & Department:

3. Institution:

4. Institution:

a) TEQIP b) Non-TEQIP

5. Mailing Address:

6. Phone:

7. Email ID:

8. Area of Interest:

9. DD/ Challan No./Cash

Dated:

Drawn At:

Signature of
Applicant
Date & Place:

Signature of the
HOD/ Principal
(Sponsoring Institute)

About the College:



Dr. AIT was started in 1980 by Late Sri M. H. Jayaprakash Narayan under the auspices of Panchajanya Vidya Peetha Welfare Trust. The institute is having Autonomous status and is affiliated to VTU. The institute has been accredited by NBA, certified by ISO and selected as Network Institution by GOI under TEQIP for World Bank assistance. Apart from 10 disciplines of Engineering, the institute also offers MCA, MBA and M. Tech. Programs in various specializations.

About the Department:

Mechanical Engineering department started the UG program (B.E Mechanical Engineering) with an initial intake of 60 students in 1979 with affiliation to Bangalore University and the present intake is 180. Research and development centre was established in 2000 with recognition from Visvesvaraya Technological University. Faculty of the departments are involved in sponsored research project and consultancy. It also offers M.Sc Engg. by research and Doctoral programmes. The department started M. Tech programs in Machine design under VTU in the year 2013-14 with an intake of 24. The total grants from the sponsored research projects from various funding agencies in last three years is Rs. 1.3 Crores.

Dr. Ambedkar Institute of Technology

Outer ring road, Mallathalli, Bengaluru-56.



Presents

NPIU

National Project Implementation Unit

TEQIP- III
Technical Education Quality Improvement Programme

Sponsored

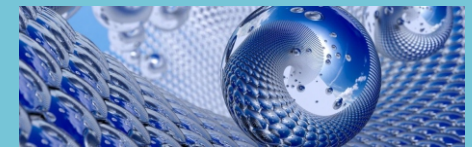
One Day Workshop on

“Smart Materials & Structures”

27th March 2018, 9:30 AM

Organised By

Department of Mechanical Engineering



Chief Co-ordinator

Dr. B. Ravindra

Prof. & HOD

Department of Mechanical Engineering

Co-ordinators

Dr. Sathish S. | Mob: 9448908552

Dr. N. Gangadhar | Mob: 9900783626

Mr. Amith Kumar S. N | Mob: 9964110981

Chief Patrons:

1. **Sri. S Mariswamy**, Chairman, P. V. P Welfare Trust, Bangalore.
2. **Sri A. R. Krishnamurthy**, Hon. Secretary, P. V. P Welfare Trust, Bangalore.
3. **Sri. P. L. Nanjundaswamy**, Treasurer, P. V. P Welfare Trust, Bangalore..
4. **Sri. S. Shivamallu**, Trustee, P. V. P Welfare Trust, Bangalore.
5. **Dr. M. Mahadev**, Trustee, P. V. P Welfare Trust, Bangalore.
6. **Dr. C. Nanjundaswamy**, Principal, Dr. Ambedkar Institute of Technology, Bengaluru - 560056.

Advisory Committee:

1. Dr. Narendranath S, NITK
2. Dr. Hemantha Kumar, NITK
3. Dr. U. S. Mallikarjun, SIT
4. Dr. Nanjundaradhya N V, RVCE
5. Dr. H. K. Shivanand, UVCE

Objective of the program

- This course is to integrate research results with curriculum development for the benefit of faculties/scholars/students in physics, materials science and engineering civil and structural engineering, mechanical and aerospace engineering, industrial and systems engineering, as well as electrical and electronic engineering.
- This course is structured of smart materials, devices and electronics, in particular those related to the development of smart structures and products.
- To acquire skills, knowledge and motivation in the design, analysis and manufacturing of smart structures and products.

Outcomes expected from of the program

After participating in this workshop, attendees should be able to

- Discuss emerging issues in Smart Materials & Structures.
- Discuss and apply recent research findings related to Smart Materials & Structures.
- Reflect on the place of critical distance in Smart Materials & Structures.

Date & Time:

27th March 2018, 9: 30 AM

Venue:

**Seminar Hall, Silver Jubilee Building,
Dr. Ambedkar Institute of Technology,
Bangalore - 56.**

Registration Fees:

(Non - TEQIP Institutes Only)

Academicians: 200 INR

Research Scholars: 200 INR

Industry Participants: 200 INR

Note: Only 90 Participants are permitted for workshop on first come first serve basis.

Address for all Correspondence:

Dr. B. Ravindra

Chief Co-ordinator & HOD,
Department of Mechanical Engineering,
Dr. Ambedkar Institute of Technology
Outer ring road, Mallathalli, Bengaluru -56.
Mobile: 9880482043

Organizing Committee:

Dr. K. M. Purushotham	Professor
Dr. T. N. Raju.	Associate Professor
Mr. Nataraj M. M.	Assistant Professor
Mr. Byre Gowda K. C.	Assistant Professor
Mr. H. A. Shivappa	Assistant Professor
Mr. Mohan Kumar B.	Assistant Professor
Mr. Manjunath H. S.	Assistant Professor
Mr. Chandan R.	Assistant Professor
Mr. Sharath Kumar S. N.	Assistant Professor
Mr. Jayanth H.	Assistant Professor
Mr. Aravind D.	Assistant Professor
Mr. Ranjith V.	Assistant Professor
Mr. Rajesh Chandra C.	Assistant Professor
Mr. Srinivasu N.	Assistant Professor



Siddaganga Institute of Technology, Tumkur 572103

An autonomous institute, Affiliated to VTU Belgaum, Approved by AICTE, Programmes Accredited by NBA

Department of Mechanical Engineering

Name: **Dr. U.S.Mallik**

Designation: Professor

e-mail: usm@sit.ac.in, usmiit@gmail.com, usm_sit@yahoo.co.in

Mob. No.: +91 9448166621

Address : **Dr. U.S.Mallikarjun**

Professor, Department of Mechanical Engineering

S.I.T, Tumkur – 572103, Karnataka, India



Educational Qualification	<ul style="list-style-type: none"> Ph.D. in Advanced Materials (Shape Memory Alloys), I.I.T.Madras, Chennai M.E., Dept. of Mechanical Engineering, U.V.C.E, Bangalore University B.E., in Mechanical Engineering, S.I.T., Tumkur, Bangalore University
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Experience	Teaching	28 Years
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Areas of Research Interest	Shape Memory Alloys Smart Materials Structure Property Correlations Hybrid Composites Nano Materials Shape Memory Composites	Fracture Toughness Fatigue Failure of Materials Bio-Materials Shape Memory Polymers Corrosion of Materials Advanced Manufacturing Processes
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Patents	02 patents filed. i) Flywheel Energy Storage System. ii) SMA for deployment of Solar Cells in spacecrafts.
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List of Funded Projects

Sl. No.	Title of Project	Sponsoring Organization	Amount Rs. - P	Duration	Present Status
1	Corrosion Behavior of Turbine Blade Materials	GTRE, DRDO, Ministry of Defence Bangalore	09,35,000=00	Two Years	Completed
2	Synthesis and Characterization of Cu-Al-Mn shape memory alloys for its Damping characteristics in Superelastic range	Visvesvaraya Technological University, Belgaum	12,00,000=00	Two Years	Completed
3	Setting up of the state of the art material characterization lab for M.Tech(MSE)	K-FIST, Govt of Karnataka	20,00,000=00	Two Years	Completed
4	“High Temperature Superconducting Energy Storage technique for use in Distributed Generation System (Flywheel Energy Storage System)”	CPRI Bangalore	09,35,000=00	Two Years	Completed
5	Modernization and Removal of Obsolescence Scheme [MODROBS]	AICTE New Delhi	08,00,000=00	One Year	Completed
6	To develop the Innovative Product Solutions for common problems faced by common man. “Strengthening the R and D Centre in the Department of Mechanical Engineering”	Karnataka Council for Technological Upgradation, Govt. of Karnataka.	38,00,000=00	Two Years	Ongoing

Research Guidance	M.Tech	35	
	Ph.D	Awarded : 04 Pursuing : 05	
Publications	International Refereed Journals		44
	International Conferences		52
	National Conferences		25
Professional Memberships	1. Life Member of Indian Society of Technical Education (M.I.S.T.E). 2. Life Member of Indian Institute of Metals (M.I.I.M). 3. Life Member of Institution of Smart Structures and Systems (M.I.S.S.S). 4. Fellow of Institution of Engineers India (F.I.E). 5. Life Member for Society for failure Analysis (M.S.F.A)		
Subjects Taught for UG and PG	1. Computer Aided Engineering Drawing 2. Materials Science and Engineering 3. Engineering Materials 4. Metal Forming Processes 5. Advanced Engineering Materials 6. Measurements and Metrology 7. Manufacturing Process-I, II, III 8. Machine Drawing	9. Production Operations Management 10. Mechanical Engineering Science 11. Production Technology 12. Foundry Technology 13. Advanced Processing of Materials 14. Strength of Materials 15. Engineering Mechanics 16. Smart Materials and MEMS	

Work Experience:

Sl. No.	Organisation	Designation	Duration	Years
1	S.I.T, Tumkur	Lecturer	1989 to 1997	8- Years
2	-do-	Senior Lecturer	1997 to 2002	5- Years
3	-do-	Asst. Professor	2002 to 2007	5- Years
4	-do-	Professor and Dean (Academic)	2007 to 2010	3- Years
5	-do-	Professor and Head of Department	2010 to 2013	3- Years
6	-do-	Professor	From 2013	---

Personal Details :

Name	: Dr. U.S.Mallik
Date of Birth	: 01-05-1965
Religion	: Hindu
Nationality	: Indian
Address	:
Permanent :	Office :
Dr. U.S.Mallikarjun	Professor
“Shivakrupa”	Dept. of Mechanical Engineering
II Main, II Cross	Siddaganga Institute of Technology
Jayanagara East	Tumkur – 572103
Tumkur-572102.	Karnataka

Invited Talks:

1. Invited talk on “Shape Memory Alloys” in the ASM and Material Advantage students chapter at Department of Metallurgical and Materials Engineering, I.I.T. Madras, Chennai-600 036.

2. Invited talk on “Smart Materials and Shape Memory Alloys” in the AICTE sponsored staff development program on Smart Materials on 4th June-2009 at NITK, Surathkal, Karnataka.
3. Invited talk on “Smart Materials and Shape Memory Alloys” in the AICTE sponsored staff development program on Advanced Materials and Materials Processing on 9th June, 2009 at SIT, Tumkur, Karnataka.
4. Invited talk on “Shape Memory Alloys for MEMS applications” in the AICTE sponsored staff development program on *MEMS SENSORS & ITS APPLICATIONS* on 10th August, 2009 at Dr.A.I.T, Bangalore, Karnataka.
5. Invited talk on “Smart Materials and Shape Memory Alloys” in the VTU, Belgaum sponsored staff development program on “Materials and Processing” on 16th Dec, 2009 at SIT, Tumkur, Karnataka.
6. Invited talk on “Recent Trends and Challenges in energy conservation and saving of energy” in the AICTE sponsored Faculty development program on “The World Today and Tomorrow-The Energy Challenge” at SIT, Tumkur, Karnataka during 20th June to 2nd July, 2011.
7. Invited talk on “An overview of Smart Materials”, in the National Conference on Advances in Mechanical Engineering Sciences organized by Raja Rajeswari College of Engineering, Bangalore on 24th Feb 2013.
8. Invited talk on “Smart Materials applications in Aerospace Industries”, in the Workshop for DRDO Scientists at CABS, DRDO, Ministry of Defence, Bangalore on 22nd Nov 2014.
9. Chief Guest and Invited talk on “Advanced Materials – A Discussion” in the Faculty Development Workshop on Manufacturing and Applications of Advanced Materials at Alva’s College of Engineering, Moodbidri on 27th and 28th Jan 2014.
10. Delivered an invited talk on “Advances in Composite Materials and its Manufacturing” in the FDP on Composite Materials and Manufacturing organized by S.S.I.T., Tumkur on 27th Feb 2014.
11. Delivered an invited lecture on “Accreditation Process and its importance” at Hirasugur Institute of Technology, Nidashoshi, Belgaum on 06th Mar 2016.
12. Delivered an invited lecture on “Outcome Based Education” at Madanapalle Institute of Technology, Madanapalli, Ananthapuram on 12th April 2016.
13. Delivered an invited talk on “Smart Materials an Overview” in the International Conference on Advanced Materials and Characterization organized by B.M.S.C.E., Bangalore and chaired the subsequent session on 17th June 2016.
14. Delivered an invited lecture on “Accreditation Process and its importance” at G.M.I.T, Davanagere on 10th and 11th Feb 2017 in Accreditation Workshop for Faculty of GMIT.
15. Delivered an invited talk on “Smart Materials” in the FDP on Advanced Materials and manufacturing organized by B.M.S.I.T., Bangalore 3^d Aug 2017.
16. Delivered an invited talk on “Smart Materials and its Applications” in the FDP on Advanced Materials and manufacturing Technology organized by M.S.R.I.T., Bangalore on 11th Dec 2017.

Others:

1. **Local Organizing Committee Member** for organizing “International Symposium for Research Scholars (ISRS-2006)”, December 18-20, 2006, I.I.T. Madras, Chennai.

2. **Local Organizing Committee Member** for organizing International Conference “FDM-NMD-ATM 2005”, November 12-16, 2005, I.I.T. Madras, Chennai.
3. **Organized** an AICTE sponsored staff development program on Advanced Materials and Materials Processing at SIT, Tumkur, Karnataka during 8th to 13th June, 2009.
4. **Organized** VTU, Belgaum sponsored staff development program on Materials and Processing at SIT, Tumkur, Karnataka during 14th to 18th Dec, 2009.
5. **Convener** for International Conference on “Advanced Materials, Manufacturing, Management and Thermal Sciences [AMMMT-2010]” organized at SIT, Tumkur, Karnataka during 18th and 19th Nov 2010.
6. **Organized** an AICTE sponsored staff development program on “The World Today and Tomorrow-The Energy Challenge” at SIT, Tumkur, Karnataka during 20th June to 2nd July, 2011.
7. **Chairman**, Organizing Committee for International Conference on “Advanced Materials, Manufacturing, Management and Thermal Sciences [AMMMT-2013]” organized at SIT, Tumkur, Karnataka during 3^d and 4th May 2013.
8. **Convener**, Organizing Committee for International Conference on “Advanced Materials, Manufacturing, Management and Thermal Sciences [AMMMT-2016]” organized at SIT, Tumkur, Karnataka during 23rd and 24th Sep 2016.
9. **Elsevier Publications** has awarded as **Recognized Reviewer Status** on 27th Sep 2016.
10. **Guest Editor** for Materials Today, Elsevier Publications and International Journal of Business and Systems Research (IJBSR), Inderscience Publications.
11. NBA Expert Committee Visiting team Member and Master Trainer for Trainers Training Program organized by NBA.
12. **BOS and BOE member** for UVCE, Bangalore University, BMSCE, Bangalore, MCE, Hassan, SIT, Tumkur and BOS VTU nominee for Dr. AIT, Bangalore.

Papers published in international refereed journals:

Sl.No.	Particulars of the Paper and Journal	National/ International
1.	“Influence of aluminum and manganese concentration on the shape memory characteristics of Cu-Al-Mn shape memory alloys”, U.S.Mallik and V.Sampath, Journal of Alloys and Compounds, Volume 459, Issue 1-2, 14 July 2008, Pages 142-147	International
2.	“Effect of composition and ageing on damping characteristics of Cu-Al-Mn shape memory alloys”, U.S.Mallik and V.Sampath, Materials Science and Engineering: A, Volume 478, Issues 1-2, 15 April 2008, Pages 48-55	International
3.	“Effect of Alloying on Microstructure and Shape Memory Characteristics of Cu-Al-Mn Shape Memory Alloys”, U.S.Mallik and V.Sampath, Materials Science and Engineering A, Vol. 481-482, 25 May 2008, pp 680-683.	International
4.	“Influence of Quaternary Alloying additions on Transformation Temperatures and Shape Memory Properties of Cu-Al-Mn Shape Memory Alloy”, U.S.Mallik and V.Sampath, Journal of Alloys and Compounds, Volume 469, Issues 1-2, 5 February 2009, Pages 156-163.	International
5.	“Evaluation of grain refinement and variation in mechanical properties of equal-channel angular pressed 2014 aluminum alloy”, C. Mallikarjuna, S.M. Shashidhara, U.S. Mallik , Materials & Design, Volume 30, Issue 5, May 2009, Pages 1638-1642.	International

6.	“Grain refinement and wear properties evaluation of aluminum alloy 2014 matrix-TiB ₂ in-situ composites”, C. Mallikarjuna, S.M. Shashidhara, U.S. Mallik , K.I.Parashivamurthy, <i>Materials & Design</i> , Volume 32, Issue 6, June 2011, Pages 3554-3559	International
7.	“CFD Analysis for design optimization of reverse flow type cyclone separator”, <i>International Journal of Mechanical and Production Engineering Research and Development (IJMPERD)</i> , K.V.Sreenivasa Rao, R.Suresh and U.S.Mallikarjun Vol.1, Issue 2, Dec 2011, 111-124.	International
8.	“An investigation into use of Sodium Chloride crystals as an electrolytic medium in a Dye sensitized Solar Cell”, <i>International Journal of Emerging Technology and Advanced Engineering (IJETAE)</i> , Anupama .R.Hiremath and U.S.Mallikarjun , Vol. 2, Issue 6, June 2012.	International
9.	“An experimentation into the utilization of different materials for the purpose of dye absorption in a dye sensitized solar cells”, <i>International Journal of Emerging Technology and Advanced Engineering (IJETAE)</i> , Anupama .R.Hiremath and U.S.Mallikarjun , Vol. 2, Issue 6, June 2012.	International
10.	“Corrosion behavior of Cu-Zn-Ni Shape Memory Alloys”, <i>Journal of Minerals and Materials Characterization and Engineering</i> , S.Satish and Dr. U S Mallik , 2013,1,49-54.	International
11.	“Characterization of Cu-Al-Be Shape Memory Alloys”, <i>IOSR Journal of Mechanical and Civil Engineering</i> , S .Prashant & Dr. U S Mallikarjun ISSN: 2278-1684, PP.01-06, Feb 2013.	International
12.	Synthesis of Cu-Al-Be Shape Memory Alloys”, <i>BONFRING JOURNAL</i> , S .Prashant & Dr. U S Mallikarjun ISBN 978-93-82338-03-1 Pg.No 01-05, July 2012.	International
13.	“Validation of NiTiInol SMA Characteristics using Finite Element Analysis and Closed Form Solutions”, Adarsh.S.H & Dr. U.S.Mallikarjun , <i>Journal of Advanced Materials Research</i> , Vol.856 (2014) pp 147-152, Online available since 2013/Dec/06 at www.scientific.net , © (2014) Trans Tech Publications, Switzerland doi:10.4028/www.scientific.net/AMR.856.147.	International
14.	“Corrosion Behavior of Cu-Zn-Ni Shape Memory Alloys” S.Satish and Dr. U S Mallik , <i>Journal of Minerals and Materials Characterization and Engineering</i> , 2013, 1, 49-54, published online in <i>Sci Res</i> , http://www.scirp.org/journal/jmmce	International
15.	“Microstructure and Shape Memory Effect of Cu-Zn-Ni Shape Memory Alloys”, <i>Journal of Minerals and Materials Characterization and Engineering</i> , S.Satish and Dr. U S Mallik , 2014, 2,71-77, published online March 2014 in <i>Sci Res</i> , http://www.scirp.org/journal/jmmce	International
16.	“Effect of Ageing on Shape Memory Effect and Transformation Temperature in Cu-Al-Be Shape Memory Alloy”, S.Prashanth, U.S.Mallik , <i>Journal of Procedia Materials Science</i> 5 (2014) 567 – 574, Elsevier Publications.	International
17.	“Preparation and Characterization of Cu-Al-Be Shape Memory Alloys with Cr as grain refining additive”, S.Prashanth, U.S.Mallik , <i>Journal of Applied Mechanics and Materials</i> , Vol. 592-594 (2014) pp 700-704, © (2014) Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/AMM.592-594.700.	International
18.	“Effect of variation in Applied Force on Transformation Temperatures of NiTiInol SMAs”, S.H.Adarsha and U.S.Mallik , <i>Journal of Procedia Materials Science</i> 5 (2014) 697 – 703, Elsevier Publications.	International
19.	“Synthesis of Cu-Al-Be-Mn Shape Memory Alloys”, A.G.Shivasiddaramaiah and U.S.Mallikarjun , <i>Journal of Procedia Materials Science</i> 5 (2014) 242 – 247, Elsevier Publications.	International
20.	“Effect of Grain Refinement on Shape Memory Properties of Cu-Al-Mn SMAs”, U.S.Mallik and V.Sampath, <i>Advanced Materials Research</i> , Vol. 1101 (2015) pp 104-10, © (2015) TransTech Publications, Switzerland, doi:10.4028/www.scientific.net/AMR.1101.104.	International
21.	“Microstructure and Shape Memory Effect of Cu-Al-Be-Mn Quaternary Shape Memory Alloys”, Shivasiddaramaiah A.G .Prashant Singh, Manjunath S.Y, U.S.Mallikarjun, <i>Applied Mechanics and Materials Vols. 813-814 (2015) pp 213-217</i> . © (2015) <i>Trans Tech Publications</i> , Sdoi:10.4028/www.scientific.net/AMM.813-814.23, Switzerland	International
22.	“ Synthesis and Characterization of Cu-Al-Be-Mn Quaternary Shape Memory Alloys Prepared by Induction Melting Technique ”, Shivasiddaramaiah A.G, U.S Mallikarjun and Prashantha S, <i>Applied Mechanics and Materials Vols. 813-814 (2015) pp 240-245</i> , © (2015) <i>Trans Tech Publications</i> , Switzerland, doi:10.4028/www.scientific.net/AMM.813-814.240	International

23.	“SYNTHESIS AND EVALUATION OF MECHANICAL PROPERTIES OF Cu-Al-Be-Mn QUATERNARY SHAPE MEMORY ALLOYS” , Shivasiddaramaiah.A.G, Manjunath.S.Y , Prashant Singh, U.S.Mallikarjun , International Journal of Applied Engineering Research, ISSN 0973-4562 Vol. 10 No.55 (2015), © Research India Publications; http://www.ripublication.com/ijaer.htm	International
24.	“Study on Corrosion Behaviour of Cu-Al-Be-Mn Quaternary Shape Memory Alloy At Room Temperature” , Shivasiddaramaiah.A.G, Ravi Das B.R.D, Prashant Singh, U.S.Mallikarjun , International Journal of Applied Engineering Research, ISSN 0973-4562 Vol. 10 No.55 (2015), © Research India Publications; http://www.ripublication.com/ijaer.htm	International
25.	“Determination of transformation temperatures of SMAs by varying the force using dead weight method” , Kiran D Jadhav, U S Mallikarjun , S H Adarsh, Prashantha S, <i>Applied Mechanics and Materials</i> , ISSN: 1662-7482, Vols. 813-814, pp 166-171 doi:10.4028/www.scientific.net/AMM.813-814.166, © 2015 Trans Tech Publications, Switzerland	International
26.	“Mechanical and Morphological Studies of Al6061- Gr- SiC Hybrid Metal Matrix Composites” , Lokesh T, U. S. Mallikarjun , <i>Applied Mechanics and Materials</i> Vols. 813-814 (2015) pp 195-202, © (2015) Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/AMM.813-814.195.	International
27.	“Variation in Transformation Temperature and Shape Memory Effect in Cu-Al-Be Shape Memory Alloys with the Effect of Quaternary Elements” , S .Prashantha, S. M. Shashidhara, U. S. Mallikarjun , Shivasiddaramaiah.A.G, <i>Applied Mechanics and Materials</i> , ISSN: 1662-7482, Vols. 813-814, pp 246-251, doi:10.4028/www.scientific.net/AMM.813-814.246, © 2015 Trans Tech Publications, Switzerland	International
28.	“EFFECT OF GRAIN REFINEMENT ON SHAPE MEMORY PROPERTIES OF Cu-Al-Mn SMAs” , U.S.Mallik and V.Sampath, <i>Advanced Materials Research</i> Vol. 1101 (2015) pp 104-107, © (2015) Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/AMR.1101.104	International
29.	“Experimental Investigation on Fracture Toughness of Cu-Al-Be Shape Memory Alloy” , Prashantha S, Kalinga T, N. Manjunath Gowda, Mallik U. S. , S. M. Shahshidhara, <i>American Journal of Materials Science</i> 2015, 5(3C): 30-33 DOI: 10.5923/c.materials.201502.06	International
30.	“Synthesis and evaluation of ageing effect on Cu—Al—Be—Mn quaternary Shape Memory Alloys” , A.G. Shivasiddaramaiah, U.S. Mallik , S. Devaraju, S. Prashantha, <i>Department of Mechanical Engineering, Siddaganga Institute of Technology, Tumakuru 572-103, Karnataka, India</i> , <i>Perspectives in Science</i> (2016) 8 , 113—116, Elsevier Publications.	International
31.	“Evaluation of shape memory effect and damping characteristics of Cu—Al—Be—Mn shape memory alloys” , A.G. Shivasiddaramaiah, U.S. Mallik , L. Shivaramu, S. Prashantha, <i>Department of Mechanical Engineering, Siddaganga Institute of Technology, Tumakuru 572-103, Karnataka, India</i> , <i>Perspectives in Science</i> (2016) 8 , 244—246, Elsevier Publications.	International
32.	“Effect of Equal Channel Angular Pressing on the Microstructure and Mechanical Properties of Al6061-SiCp Composites” , T Lokesh and U S Mallik , <i>Materials Science and Engineering</i> , 149 (2016) 012119 doi:10.1088/1757-899X/149/1/012119, IOP Publications.	International
33.	“Shape Memory Polymers Synthesised For Controllable Switching Temperatures” , Ranganatha Swamy MK, U S Mallikarjun , V Udayakumar, <i>Materials Today: Proceedings</i> 4 (2017) 4 (2017) 11148–11153.	International
34.	“Mechanical and Morphological Studies of Al6061- Gr- SiC Hybrid Metal Matrix Composites” , Lokesh T, U. S. Mallikarjun , <i>Applied Mechanics and Materials</i> Vols. 813-814 (2015) pp 195-202, © (2015) Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/AMM.813-814.195.	International
35.	“Effect Of Ageing On Damping Characteristics Of Cu-Al-Be-Mn Quaternary Shape Memory Alloys” , Shivaramu L, A.G Shivasiddaramaiah, U.S Mallik , Prashantha S, <i>Materials Today: Proceedings</i> 4 (2017) 11314–11317.	International
36.	“Damping Characteristics of Cu-Al-Be-Mn Quaternary Shape Memory Alloys” , A.G Shivasiddaramaiah., U.S.Mallikarjun , Shivaramu L, Prashantha S, <i>Materials Today: Proceedings</i> 4 (2017) 8948–8953.	International

37.	“EVALUATION OF CORROSION BEHAVIOUR OF Cu-Al-Be-Mn QUATERNARY SHAPE MEMORY ALLOYS” , A.G Shivasiddaramiah, U.S Mallik , Ranjit Mahato, C. Shashishekar, Materials Today: Proceedings 4 (2017) 10971–10977.	International
38.	“Wear Behaviour of Cu-Al-Be-Mn Shape Memory Alloys by Using Taguchi Technique” , A.G Shivasiddaramiah, U.S Mallik , Krishnakanth C, Prashanth S, Materials Today: Proceedings 4 (2017) 11168–11174.	International
39.	“A Study on Machining Characteristics of Al6061-Sic Metal Matrix Composite through Wire – Cut Electro Discharge Machining” , Prashantha S, Veerasha R B, S M Shashidhara, Mallikarjun.U.S , Shivasiddaramaiah.A.G, Materials Today: Proceedings 4 (2017) 10779–10785.	International
40.	“Evaluation of Shape memory effect and Pseudo elastic effect of Cu-Al-Be-Mn Quaternary shape memory alloys” , A.G Shivasiddaramaiah, U.S Mallik , Jayanth V, Prashanth S, Materials Today: Proceedings 4 (2017) 10109–10112.	International
41.	“Evaluation of Shape Memory Effect and Wear Characteristics of Cu-Al-Be-Mn Quaternary Shape Memory Alloys” , A.G Shivasiddaramaiah, U.S Mallik , Krishnakanth C, Prashantha S, Materials Today: Proceedings 4 (2017) 10099–10103.	International
42.	“Evaluation of Shape Memory Effect and Wear Properties of Cu-Al-Be Shape Memory Alloys” , S.Prashantha, S. M. Shashidhara, U. S. Mallikarjun , Shivasiddaramaiah.A.G, Materials Today: Proceedings 4 (2017) 10123–10127.	International
43.	“Dry sliding wear behavior of Al/Gr/SiC hybrid metal matrix composites by Taguchi techniques” , Lokesh T, U. S. Mallik , Materials Today: Proceedings 4 (2017) 11175–11180.	International
44.	“Effect of Equal Channel Angular Pressing on the Microstructure and Mechanical Properties of Hybrid Metal Matrix Composites” , T. Lokesh and U. S. Mallik , Indian Journal of Science and Technology, Vol 9(35), DOI: 10.17485/ijst/2016/v9i35/88443, September 2016.	International



JSS MAHAVIDYAPEETHA

JSS ACADEMY OF TECHNICAL EDUCATION

JSSATE Campus, Uttarahalli – Kengeri Main Road, Bangalore – 560 060

Phone: 080-28611902, 28612797 Fax: 080-28612706 www.jssateb.ac.in

1. **NAME** : Dr. Anandkumar R. Annigeri
2. **Date of Birth** : 24-02-1968
3. **Father Name** : Ramappa
4. **Sex** : Male
5. **Nationality** : Indian
6. **Contact No.** : 9448319797
7. **E-mail ID** : a_annigeri@yahoo.com
8. **Address**
 - a. **Correspondence** : # 212, Deccan Arcade 2, Rajarajeshwarinagar, Bangalore-98
 - b. **Permanent Address** : -Do-
9. **Employment Type** : Permanent
10. **Educational Qualifications** : (In reverse Chronological Order)



Sl. No.	Degree	Branch	Specialization	Year of passing	University
1	PhD	Mechanical Engg.	FE modelling of Smart structures	2007	IIT Madras
2	ME	Production Engg.	Production Management	1992	Karnataka University
3	BE	Mechanical Engg.	Mechanical Engg	1989	

11. Service Details (In reverse Chronological Order):

a. Teaching Experience:

Sl. No.	From (mm/yy)	To (mm/yy)	No. of years	Degree or Diploma Institution	Designation	Name of the Institute
1	01/07/2014		3yr 3 months	Degree	Professor	JSS Academy Technical Education Bangalore-60
2	10/09/2012	30/06/2014	1yr 10 months	Degree	Principal	JSS Academy Technical Education Mauritius
3	24/01/2012	08/09/2012	7 months	Degree	Professor	JSS Academy Technical Education Bangalore-60

4	01/12/2010	21/01/2012	1yr 2 months	Degree	Principal	Yellamma Dasappa IT Bangalore-62
5	02/11/2009	30/11/2010	1yr 1 months	Degree	Principal	SCT Inst. Tech. Bangalore-560 075
6	02/09/1992	31/10/2009	17 yrs 2 months	Degree	Lecturer, Assistant Professor	B.V.B College of Engineering and Technology, Hubli - 31
Total Experience			Years	25 years		

12. Membership in various University Boards / Committees / Other (Specify):

Sl. No.	Body	From	To	Name of the University / Institution / Organisation
1	VTU-LIC	2011	2012	VTU Belgaum

13. Field of Expertise / Interest : FEM, Mechanical vibrations, Smart structures

:

14. Details of Publications:

Google scholar link: <https://scholar.google.co.in/citations?user=5MtlcyAAAAAJ&hl=en>

Citation Indices	All	Since 2012
Citations	156	77
h-Index	3	3
i10-Index	3	3

1 a) Journal: International

Sl. No.	Name of Co-Author	Title of Paper	Name of the Journal	Publisher	Publication citation ISSN, ISBN, Vol. No., Issue, pp
1	N Ganesan, S Swarnamani	Free vibration behaviour of multiphase and layered magneto-electro-elastic beam	Journal of Sound and Vibration	ELSEVIER	ISSN : 0022-460X Volume No. :299 Issue : 1-2 Month & Year : January 2007 Page Nos. : 44-63
2	N Ganesan, S Swarnamani	Free vibrations of clamped-clamped magneto-electro-elastic cylindrical shells	Journal of Sound and Vibration	ELSEVIER	ISSN : 0022-460X Volume No. : 292 Issue : 1-2 Month & Year : April 2006 Page Nos. :300-314
3	N Ganesan, S Swarnamani	Free vibrations of simply supported layered and multiphase magneto-electro-elastic cylindrical shells	Smart Materials and Structures	IOPScience	ISSN : 0964-1726 Volume No. :15 Issue : 2 Month & Year :April 2006 Page Nos. :459-467

2 a) Conference: International

Sl. No.	Name of Co-Author	Title of Paper	Name of the Conference	Publisher	Publication citation ISSN, ISBN, Vol. No., Issue, pp
1	N Ganesan, S Swarnamani	Free Vibration Response of Multiphase Magneto-Electro-Elastic Plates by Finite Element Method	Thirteenth International Congress on Sound and Vibration (ICSV13), , Vienna, Austria.		July 2-6, 2006

2 a) Conference: International

Sl. No.	Name of Co-Author	Title of Paper	Name of the Conference	Publisher	Publication citation ISSN, ISBN, Vol. No., Issue, pp
1	N Ganesan, S Swarnamani	Static Studies On Piezomagnetic Beam, International Congress on Computational Mechanics and Simulation	ICCMS-04, IIT Kanpur, India		December 9-12, 2004,
2	N Ganesan, S Swarnamani	Static Studies on Magneto-Electro-Elastic Beam, International Conference on Smart Materials Structures and Systems	ISSS-2005 IISc. Bangalore, India		July 28-30, 2005,
3	N Ganesan, S Swarnamani	Modeling of Cantilever Magneto-Electro-Elastic Cylindrical Shell, International Conference on Computational and Experimental Engineering and Mechanics	ICCES-05 IIT Madras, India.		December,1-6, 2005,



Siddaganga Institute of Technology, Tumkur 572103

An autonomous institute, Affiliated to VTU Belgaum, Approved by AICTE, Programmes Accredited by NBA

Department of Mechanical Engineering

Name: Dr. A G Shivasiddaramaiah Designation: Assistant Professor e-mail: agssit@rediffmail.com, agssit1@gmail.com Mob. No.: +91 9448175427 Address : Dr. A G Shivasiddaramaiah Professor, Department of Mechanical Engineering S.I.T, Tumkur – 572103, Karnataka, India				
Educational Qualification	<ul style="list-style-type: none"> • Ph.D. in Advanced Materials (Shape Memory Alloys) • M.Tech., Tool Engineering, GT & TC, Bangalore. • B.E., in Mechanical Engineering, S.I.T., Tumkur. 			
Experience	Teaching	10 Years	Industry	03 Years
Areas of Research Interest	Shape Memory Alloys Smart Materials Shape Memory Composites Corrosion of Materials Bio-Materials			
Research Guidance	M.Tech	06		
Publications	International Conferences			20
	International Refereed Journals			15
Professional Memberships	<ol style="list-style-type: none"> 1. Life Member of Indian Society of Technical Education (M.I.S.T.E). 2. Member of Institution of Engineers India (M.I.E). 			
Subjects Taught for UG and PG	<ol style="list-style-type: none"> 1. Computer Aided Engineering Drawing 2. Advanced Materials (Smart Materials and Shape Memory Alloys) 3. Machine Drawing 4. Production Operations Management 5. Non Traditional Machining 6. CAD/ CAM ROBOTICS 7. Computer Integrated Manufacturing 8. Industrial Engineering and Ergonomics 9. Engineering Mechanics 10. Smart Materials and MEMS 			

Work Experience:

Sl. No.	Organisation	Designation	Duration	Years
1	S.I.T, Tumkur	Lecturer	2008 to 2011	3-Years
3	S.I.T, Tumkur	Asst. Professor	From 2011	Till date

Personal Details :

Name	: Dr. Shivasiddaramaiah A G
Date of Birth	: 06-05-1980
Religion	: Hindu
Nationality	: Indian
Address	:
Permanent :	Office :
Dr. Shivasiddaramaiah A G	Assistant Professor
“Siddarameshwara Nilaya”	Dept. of Mechanical Engineering
Arakere (Post)	Siddaganga Institute of Technology
Tumkur Taluk and Dist	Tumkur – 572103
Karnataka-572106.	Karnataka

Papers published in international refereed journals:

Sl.No.	Particulars of the Paper and Journal	National/ International
1.	“Synthesis of Cu-Al-Be-Mn Shape Memory Alloys”, A.G.Shivasiddaramaiah and U.S.Mallikarjun, Journal of Procedia Materials Science 5 (2014) 242 – 247, Elsevier Publications.	International
2.	“ Microstructure and Shape Memory Effect of Cu-Al-Be-Mn Quaternary Shape Memory Alloys ”, Shivasiddaramaiah A.G , Prashant Singh, Manjunath S.Y, U.S.Mallikarjun, <i>Applied Mechanics and Materials Vols. 813-814 (2015) pp 213-217.</i> © (2015) <i>Trans Tech Publications</i> , Sdoi:10.4028/www.scientific.net/AMM.813-814.23, Switzerland	International
3.	“ Synthesis and Characterization of Cu-Al-Be-Mn Quaternary Shape Memory Alloys Prepared by Induction Melting Technique ”, Shivasiddaramaiah A.G , U.S Mallikarjun and Prashantha S, <i>Applied Mechanics and Materials Vols. 813-814 (2015) pp 240-245</i> , © (2015) <i>Trans Tech Publications</i> , Switzerland, doi:10.4028/www.scientific.net/AMM.813-814.240	International
4.	“ SYNTHESIS AND EVALUATION OF MECHANICAL PROPERTIES OF Cu-Al-Be-Mn QUATERNARY SHAPE MEMORY ALLOYS ”, Shivasiddaramaiah.A.G , Manjunath.S.Y , Prashant Singh, U.S.Mallikarjun, International Journal of Applied Engineering Research, ISSN 0973-4562 Vol. 10 No.55 (2015), © Research India Publications; httpwww.ripublication.comijaer.htm	International
5.	“ Study on Corrosion Behaviour of Cu-Al-Be-Mn Quaternary Shape Memory Alloy At Room Temperature ”, Shivasiddaramaiah.A.G , Ravi Das B.R.D, Prashant Singh, U.S.Mallikarjun, International Journal of Applied Engineering Research, ISSN 0973-4562 Vol. 10 No.55 (2015), © Research India Publications; httpwww.ripublication.comijaer.htm	International
6.	“ Variation in Transformation Temperature and Shape Memory Effect in Cu-Al-Be Shape Memory Alloys with the Effect of Quaternary Elements ”, S .Prashantha, S. M. Shashidhara, U. S. Mallikarjun, Shivasiddaramaiah.A.G , <i>Applied Mechanics and Materials</i> , ISSN: 1662-7482, Vols. 813-814, pp 246-251, doi:10.4028/www.scientific.net/AMM.813-814.246, © 2015 <i>Trans Tech Publications</i> , Switzerland	International
7.	“ Synthesis and evaluation of ageing effect onCu—Al—Be—Mn quaternary Shape MemoryAlloys ”, A.G. Shivasiddaramaiah , U.S. Mallik, S. Devaraju, S. Prashantha, <i>Department of Mechanical Engineering, Siddaganga Institute of Technology, Tumakuru 572-103, Karnataka,India</i> , <i>Perspectives in Science</i> (2016) 8 , 113—116,Elsevier Publications.	International
8.	“ Evaluation of shape memory effect anddamping characteristics of Cu—Al—Be—Mnshape memory alloys ”, A.G. Shivasiddaramaiah , U.S. Mallik, L. Shivaramu,S. Prashantha, <i>Department of Mechanical Engineering, Siddaganga Institute of Technology, Tumakuru 572-103, Karnataka,India</i> , <i>Perspectives in Science</i> (2016) 8 , 244—246, Elsevier Publications.	International
9.	“ Effect Of Ageing On Damping Characteristics Of Cu-Al-Be-Mn Quaternary Shape Memory Alloys ”, Shivaramu L, A.G Shivasiddaramaiah , U.S Mallik , Prashantha S, <i>Materials Today: Proceedings</i> 4 (2017) 11314–11317.	International

10.	“Damping Characteristics of Cu-Al-Be-Mn Quaternary Shape Memory Alloys” , A.G Shivasiddaramaiah., U.S.Mallikarjun, Shivaramu L, Prashantha S, Materials Today: Proceedings 4 (2017) 8948–8953.	International
11.	“EVALUATION OF CORROSION BEHAVIOUR OF Cu-Al-Be-Mn QUATERNARY SHAPE MEMORY ALLOYS” , A.G Shivasiddaramiah, U.S Mallik, Ranjit Mahato, C. Shashishekar, Materials Today: Proceedings 4 (2017) 10971–10977.	International
12.	“Wear Behaviour of Cu-Al-Be-Mn Shape Memory Alloys by Using Taguchi Technique” , A.G Shivasiddaramiah, U.S Mallik, Krishnakanth C, Prashanth S, Materials Today: Proceedings 4 (2017) 11168–11174.	International
13.	“A Study on Machining Characteristics of Al6061-Sic Metal Matrix Composite through Wire – Cut Electro Discharge Machining” , Prashantha S, Veerasha R B, S M Shashidhara, Mallikarjun.U.S, Shivasiddaramaiah.A.G, Materials Today: Proceedings 4 (2017) 10779–10785.	International
14.	“Evaluation of Shape memory effect and Pseudo elastic effect of Cu-Al-Be-Mn Quaternary shape memory alloys” , A.G Shivasiddaramaiah, U.S Mallik, Jayanth V, Prashanth S, Materials Today: Proceedings 4 (2017) 10109–10112.	International
15.	“Evaluation of Shape Memory Effect and Wear Characteristics of Cu-Al-Be-Mn Quaternary Shape Memory Alloys” , A.G Shivasiddaramaiah, U.S Mallik, Krishnakanth C, Prashantha S, Materials Today: Proceedings 4 (2017) 10099–10103.	International
16.	“Evaluation of Shape Memory Effect and Wear Properties of Cu-Al-Be Shape Memory Alloys” , S .Prashantha, S. M. Shashidhara, U. S. Mallikarjun, Shivasiddaramaiah.A.G, Materials Today: Proceedings 4 (2017) 10123–10127.	International

Others:

1. Organizing Committee Member for International Conference on “Advanced Materials, Manufacturing, Management and Thermal Sciences [AMMMT-2010]” organized at SIT, Tumkur, Karnataka during 18th and 19th Nov 2010.
2. Local Organizing Committee Member for AICTE sponsored staff development program on “The World Today and Tomorrow-The Energy Challenge” at SIT, Tumkur, Karnataka during 20th June to 2nd July, 2011.
3. Organizing Committee Member for International Conference on “Advanced Materials, Manufacturing, Management and Thermal Sciences [AMMMT-2013]” organized at SIT, Tumkur, Karnataka during 3rd and 4th May 2013.
4. Organizing Committee Member for International Conference on “Advanced Materials, Manufacturing, Management and Thermal Sciences [AMMMT-2016]” organized at SIT, Tumkur, Karnataka during 23rd and 24th Sep 2016.



Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BANGALORE – 560056
Department of Mechanical Engineering

One day workshop
on
“SMART MATERIALS & STRUCTURES”
27th March, 2018

REPORT

The programme was started with the formal inauguration function at 09:00AM, in presence of the Dean Dr. M.N Hegde. Dr. K. M. Purushothama, HOD, Department of Mechanical Engineering, welcome the dignitaries and introduced the resource persons Dr. U. S. Mallik, Professor narrated the importance of SMART MATERIALS & STRUCTURES which helps the students, research scholars and faculties to improve their technical knowledge and industrial exposure to build their career. Dean addressed the gathering. The program was attended by all 8th semester UG students, PG Students of mechanical department and faculties from various colleges. The resource persons Dr. U. S. Mallik, Dr. A. G. Shivasiddaramaiah, Dr. Anandkumar R Annigeri and Dr. T. N. Raju delivered the keynote address and narrated the salient features of the programme “SMART MATERIALS & STRUCTURES”, explained how they carry out the sessions to enhance students and faculties knowledge. The Coordinators expressed their gratitude to the management for providing facility and TEQIP for its financial assistance to the program. The function was ended with vote of thanks along with light refreshment.

The sessions covered the following software tools:

1. Introduction to Smart Materials
2. Recent research findings related to Smart Materials
3. Challenges in Smart Structures
4. Characterization of Smart Materials

Coordinator
Dr. Gangadhar N.

HOD
(Dr. K. M. Purushothama)



Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BANGALORE – 560056
Department of Mechanical Engineering

One day workshop
on
“SMART MATERIALS & STRUCTURES”
27th March, 2018



Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BANGALORE – 560056
Department of Mechanical Engineering

One day workshop
on
“SMART MATERIALS & STRUCTURES”
27th March, 2018

Name : Sujith S Pillai
Company : DesignTech System Ltd
Designation : Application Engineer
Region : Bengaluru

Educational Qualification:

Bachelor of Technology (Mechanical Engineering)

Cochin University : Sarabhai Institute of technology, trivandrum

Experience Summary:

Over 3+ years of Industrial experience in the field of Design and CAE. Working as an **Application engineer** in **DesignTech Systems Ltd** for Altair Products. Key responsibility are Technical Support, Demo, Benchmark on OptiStruct FEA, OptiStruct Optimization, radios, st-inspire and Motion Solve.

had been actively involved in training and project execution with following teams :

1. BEL
2. BEML
3. HAL
4. NAL
5. NTAF
6. CCAD
7. CAIR
8. ADA
9. ADE
10. HAL-ARDC
11. HAL-RWRDC
12. HAL-ENGINEDIVISION
13. DEBEL
14. VSSC
15. ISAC
16. ISTRAC

Colleges ;

1. RRCE, BLR
2. MIT
3. VVIT, HYDERABAD
4. ST MARTINS COLLEGE, HYDERABAD

OBJECTIVE

To work in a challenging field with a good working environment and to become a technical expert in the field CAE.

EDUCATIONAL QUALIFICATION

- **PhD** on strength of steam turbine casing.
- Completed **M.TECH** (Thermal Power Engineering) Degree in the month of **December 2006** with an overall aggregate of **83%** in **Siddaganga Institute of Technology, Tumkur** of **V.T.U.**
- Completed **B.E** (Mechanical Engineering) Degree in the month of **September 2004** with an overall aggregate of **72.37%** in **Bangalore Institute of Technology, Bangalore** of **V.T.U...**

List of publications

International Journal

- [1] Laxminarayan.k, Dr. M Venkatarama Reddy, Dr. Kumar, 'Contact pressure Validation of Steam Turbine Casing for Static Loading Condition' accepted for publication at "International Journal of Modern Engineering Research" ISSN: 2249-6645. Vol. 3, Issue.5, Sep - Oct. 2013 pp-2888-2893.
- [2] Laxminarayan.k, Dr. M Venkatarama Reddy, Dr. Kumar, 'Analysis of Steam Turbine casing for Static Loading Condition' accepted for publication at "International Journal of Mechanical Engineering" ISSN: 0974-5823. Vol. 6, Issue.2, July - December. 2013 pp-139-144.
- [3] Laxminarayan.k, Dr. M Venkatarama Reddy, Dr. Kumar, ' Optimization of Steam Turbine Casing for Static Loading Condition' accepted for publication at "International Journal of Material Science and Engineering" Vol. 1, No. 2 December 2013.
- [4] Laxminarayan.k, Dr. M Venkatarama Reddy, Jayanth H S 'Design and structural analysis of high pressure casing of a steam turbine 'accepted for publication at "ELSEVIER" March 2014

International Conferences

- [1] Laxminarayan.k, Dr. M Venkatarama Reddy, Jayanth H S ‘Design and structural analysis of high pressure casing of a steam turbine’. International Conference of Advances in Manufacturing and Materials Engineering, AMME 2014, March 27-29, 2014, Department of Mechanical Engineering, National Institute of Technology, Karnataka, Surathkal.

EXPERIENCE SUMMARY

I have around 12 Years of experience in CAE Field on Hypermesh, Optistruct, Optimization, Radioss

Currently I am working in **DESIGNTECH SYSTEM Ltd** as Regional Manager Technical. I am working on **Altair products** and supporting various Defence and Commercial companies and also Educational Institutions. Main responsibilities are: Benchmarking of Altair at different customers/prospects. Handling CRITICAL situations for customers & providing solutions for the same and for project on Altair.

SOFTWARE SKILLS

SI.No	Software	Remarks
1	Hyper Mesh	Finite Element Modeling
3	Optistruct	Linear Static Analysis
4	Optimization	Topology, Topography, Size, Free Size and Shape Optimization
5	Radioss	Nonlinear Analysis
6	Hyper View, Hyper Graph	Post processing and Preparing Reports.

PROFESSIONAL EXPERIENCE

1. DESIGNTECH SYSTEM Ltd
Bangalore, India
Senior Manager – Altair

November 2006 to Till Date

Main Responsibilities:

1. Handling CRITICAL situations for customers & providing solutions for the same.
2. Address Customer issues / queries - Problem Resolution.
3. Customizations, Troubleshooting, standard environment.

4. Altair and Radioss environments on WINDOWS, UNIX, LINUX, IBM AIX operating systems.
5. Working with macros for customizing Altair for various Applications.
6. Benchmarking of ALTAIR and RADIOSS bench mark projects to the Customers

I got 8 appreciations Letter from defence customers.

CUSTOMERS:

1. HAL
2. NAL
3. CABS
4. LRDE
5. GTRE
6. ISAC
7. LEOS
8. NTAf
9. RRL- BHOPAL
10. VRDE
11. ADRDE
12. IGCAR
13. IIT-CHENNAI
14. IISC- BANGALORE
15. ANNA UNIVERSITY – CHENNAI
16. CAPARO

SUMMARY

- To deliver customer Projects
- Conducting seminar/presentation on new releases

PROJECT DETAILS

- 1. Title** : Thermal Analysis Of Turbine Blade
Company : LRDE.
Tool Used : Hypermesh, Optistruct
Role : Meshing and Analysis
Description : Project involved Finite Element Modeling of turbine blade using CAD data of Components provided by the client. Solid Elements were created based on client requirements and quality standards. Analysis was performed using optistruct to determine the deformation and stress characteristics of the blade.

- 2. Title** : Bird strike Analysis Of Engine Blade
Company : GTRE.
Tool Used : Hypermesh, Radioss
Role : Meshing and Analysis

Description : Project involved Finite Element Modeling of Engine blade and Bird using CAD data of Components provided by the client. Solid and Shell Elements were created based on client requirements and quality standards. Analysis was performed using Radioss to find the damage of components of engine blade due to bird strike event.

3. Title : Blade Containment Analysis Of Engine Blade

Company : GTRE.

Tool Used : Hypermesh, Radioss

Role : Meshing and Analysis

Description : Project involved Finite Element Modeling of Engine blade using CAD data of Components provided by the client. Shell Elements were created based on client requirements and quality standards. Analysis was performed using Radioss to find out the effect of surrounding blades and the casing when one of the engine blade gets detached.

4. Title : Under Ground Explosion

Company : RRL Bhopal.

Tool Used : Hypermesh, Radioss

Role : Meshing and Analysis

Description : Project involved Finite Element Modeling using CAD data of Components provided by the client. Solid Elements were created based on client requirements and quality standards. Analysis was performed using Radioss to determine the effect of blast simulation and pressure wave generated.

5. Title : Composite Optimization Of Wind turbine Blade

Company : NAL.

Tool Used : Hypermesh, Optistruct

Role : Meshing and Analysis

Description : Project involved Finite Element Modeling using CAD data of Components provided by the client. Shell Elements were created based on client requirements and quality standards. Analysis was performed using optistruct to Optimize the thickness of each Ply.

6. Title : Analysis Of Strain Gauge

Company : NTAF.

Tool Used : Hypermesh, Optistruct

Role : Meshing and Analysis

Description : Project involved Finite Element Modeling of turbine blade using CAD data of Components provided by the client. Solid Elements were created based on client requirements and quality standards. Analysis was performed at different loading conditions using optistruct to determine the displacement and stress characteristics of the Strain Gauge.

7. Title : Bird Strike Analysis Of Aeroplane leading Edge Using SPH

Company : CABS.

Tool Used : Hypermesh, Radioss

Role : Meshing and Analysis

Description : Project involved Finite Element Modeling of leading edge and Bird using CAD data of Components provided by the client. SPH and Shell Elements were created based on client requirements and quality standards. Analysis was performed using Radioss to find the damage of components of leading edge and the results obtained was compared with solid elements of Bird.

8. Title : Topology Optimization Of Lathe Bed

Company : HMT.

Tool Used : Hypermesh, Optistruct

Role : Meshing and Analysis

Description : Project involved Finite Element Modeling of lathe bed using CAD data of Components provided by the client. Solid elements were created based on client requirements and quality standards. Analysis was performed using Optitruuct to Optimize the weight of lathe bed with manufacturing Constraints.

9. Title : Two Stage Topology Optimization Of Telescopic Component

Company : LEOS.

Tool Used : Hypermesh, Optistruct

Role : Meshing and Analysis

Description : Project involved Finite Element Modeling of component using CAD data of Components provided by the client. Solid elements were created based on client requirements and quality standards. Analysis was performed using Optitruuct to Optimize the weight of telescopic component with manufacturing Constraints.

10. Title : Full vehicle Blast Simulation For land Mines

Company : VRDE.

Tool Used : Hypermesh, Radioss

Role : Meshing and Analysis

Description : Project involved Finite Element Modeling using CAD data of Components provided by the client. Shell Elements were created based on client requirements and quality standards. Analysis was performed using Radioss to determine the effect of blast simulation on full vehicle.

Place: Bangalore

Date:

(Laxminarayan.K)



Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BANGALORE – 560056
Department of Mechanical Engineering

Two day Hands on Training

on

“HyperWorks”

13th & 14th February, 2019

REPORT

The programme was started with the formal inauguration function at 9:30AM. Dr. K. M. Narayanappa, Professor & HOD, Department of Mechanical Engineering, welcomed the dignitaries. Dr. K M Purushothama, Professor, Department of Mechanical Engineering introduced the resource persons. Invocation song was sung by Miss. Shilpa, Student, Department of Mechanical Engineering. Vote of Thanks was proposed by Dr. Sathish S, Associate Professor, Department of Mechanical of Mechanical Engineering. The training was attended by 8th semester UG Students and faculties of mechanical department. Faculties from various colleges also attended the training. The resource persons Dr. Lakshminarayana K, Application Engineer, DesignTech Systems Ltd., Bangalore and Mr. Sujith S Pillai, Application Engineer, DesignTech Systems Ltd., Bangalore delivered the keynote address and narrated the importance of “HyperWorks”, training and explained how they carry out the sessions to enhance students and faculty’s knowledge. After the tea break, Training started in mechanical CAED/CIM lab and ended at 4:30 PM. Next day at 9:30 AM sharp training was continued and took place till 3:30 PM. After the training was completed certificates were issued to the participants.

Coordinators expressed their gratitude to the management for providing facility and TEQIP for its financial assistance to the program. The function was ended with vote of thanks along with light refreshment.

The training covered the following:

- 1) Introduction to CFD Analysis using AcuSolve
- 2) Intake manifold problem (steady, incompressible, isothermal flow)
- 3) AcuSolve Workflow
- 4) Basic internal flow problem
- 5) Mixing elbow problem (steady, turbulent, incompressible, isothermal flow)
- 6) Best practices and convergence
- 7) Backward Facing Step problem (steady, turbulent, incompressible, isothermal flow)

Coordinator
Dr. Sathish S

HOD
(Dr. K. M. Narayanappa)

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BANGALORE – 560056
Department of Mechanical Engineering

Two day Hands on Training
on
“HyperWorks”
13th & 14th February, 2019

PHOTOS











Registration Form

Two Day Hands on Training on “HyperWorks”

13th & 14th February 2019, 9:30 AM

1. Name :

2. Designation & Department:

3. Institution:

4. Institution:

a) TEQIP b) Non-TEQIP

5. Mailing Address:

6. Phone:

7. Email ID:

8. Area of Interest:

9. DD/ Challan No./Cash

Dated:

Drawn At:

Signature of
Applicant
Date & Place:

Signature of the
HOD/ Principal
(Sponsoring Institute)

About the College:



Dr. AIT was started in 1980 by Late Sri M. H. Jayaprakash Narayan under the auspices of Panchajanya Vidya Peetha Welfare Trust. The institute is having Autonomous status and is affiliated to VTU. The institute has been accredited by NBA, certified by ISO and selected as Network Institution by GOI under TEQIP for World Bank assistance. Apart from 10 disciplines of Engineering, the institute also offers MCA, MBA and M. Tech. Programs in various specializations.

About the Department:

Mechanical Engineering department started the UG program (B.E Mechanical Engineering) with an initial intake of 60 students in 1979 with affiliation to Bangalore University and the present intake is 180. Research and development centre was established in 2000 with recognition from Visvesvaraya Technological University. Faculty of the departments are involved in sponsored research project and consultancy. It also offers M.Sc Engg. by research and Doctoral programmes. The department started M. Tech programs in Machine design under VTU in the year 2013-14 with an intake of 24. The total grants from the sponsored research projects from various funding agencies in last three years is Rs. 1.3 Crores.

**Dr. Ambedkar
Institute of Technology**
Outer ring road, Mallathalli, Bengaluru-56.



Presents

TEQIP- III
Technical Education Quality Improvement Programme

NPIU
National Project Implementation Unit

Sponsored

Two Day Hands on Training on “HyperWorks”

13th & 14th February 2019, 9:30 AM

Organised By

**Department of Mechanical
Engineering**



HyperWorks

Chief Co-ordinator

Dr. Sathish S.

Associate Professor

Department of Mechanical Engineering

Co-ordinators

Mr. Jayanth H | Mob: 7760823254

Mr. Sharath Kumar S. N | Mob: 9916711881

Mr. Rajesh Chandra C | Mob: 9902976027

Chief Patrons:

1. **Sri. S Mariswamy**, Chairman, P. V. P Welfare Trust, Bangalore.
2. **Sri A. R. Krishnamurthy**, Hon. Secretary, P. V. P Welfare Trust, Bangalore.
3. **Sri. P. L. Nanjundaswamy**, Treasurer, P. V. P Welfare Trust, Bangalore..
4. **Sri. S. Shivamallu**, Trustee, P. V. P Welfare Trust, Bangalore.
5. **Dr. M. Mahadev**, Trustee, P. V. P Welfare Trust, Bangalore.

Patrons:

1. **Dr. C. Nanjundaswamy**, Principal, Dr. Ambedkar Institute of Technology, Bengaluru - 560056.
2. **Dr. Meenakshi M.**, Dean (Academic), Dr. Ambedkar Institute of Technology, Bengaluru - 560056.
3. **Dr. Mahalinga V Mandi**, Co-Ordinator, TEQIP-III, Dr. Ambedkar Institute of Technology, Bengaluru - 560056.
4. **Dr. K. M. Narayanappa**, HOD, Department of Mechanical Engineering, Dr. Ambedkar Institute of Technology, Bengaluru - 560056.

About Altair

Altair Engineering Inc. is an American product design and development, engineering software and cloud computing software company. Altair was founded by James R Scapa, George Christ, and Mark Kistner in 1985. Over its history, it has had various locations near Detroit, Michigan, U.S. It is currently headquartered in Troy, Michigan with regional offices throughout America, Europe and Asia.

Objective of the program

- Customization, troubleshooting, standard environment.
- Altair and Radioss environments on WINDOWS, UNIX, LINUX, IBM AIX operating systems.
- Working with macros for customizing Altair for various Applications.

Outcomes expected from of the program

- Handling Critical situations for customers & providing solutions for the same.
- Address Customer issues / queries - Problem Resolution.
- Benchmarking of Altair and RADIOSS bench mark projects to the Customer.

Date & Time:

13th & 14th February 2019, 9:30 AM

Venue:

Seminar Hall, Silver Jubilee Building, Dr. Ambedkar Institute of Technology, Bangalore - 56.

Registration Fees:

(Non - TEQIP Institutes Only)

Academicians: 200 INR

Research Scholars: 200 INR

Industry Participants: 200 INR

Note: Only 90 Participants are permitted for workshop on first come first serve basis.

Address for all Correspondence:

Dr. Sathish S.

Associate Professor, Department of Mechanical Engineering,
Dr. Ambedkar Institute of Technology, Bengaluru -56.
Mobile: 9448908552

Organizing Committee:

Dr. K. M. Purushotham	Professor
Dr. T. N. Raju.	Associate Professor
Mr. Doddanna K.	Assistant Professor
Dr. Nataraj M. M.	Assistant Professor
Mr. Byre Gowda K. C.	Assistant Professor
Mr. H. A. Shivappa	Assistant Professor
Mr. Mohan Kumar B.	Assistant Professor
Mr. Manjunath H. S.	Assistant Professor
Mr. Chandan R.	Assistant Professor
Mr. Amith Kumar S. N.	Assistant Professor
Mr. Aravind D.	Assistant Professor
Mr. Ranjith V.	Assistant Professor
Mr. Mallikarjun Kallimath	CAD/CAM/CAE Instructor

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(Autonomous Institute affiliated to Visvesvaraya Technological University, Belgaum)
BDA Outer Ring Road, Mallathahalli, Bangalore – 560 056

5 DAYS ONLINE FACULTY DEVELOPMENT PROGRAM

ON

DESIGN AND ANALYSIS USING CATIA AND ANSYS (DAACAA-2021)

FROM 20th – 24th Sept 2021



Sponsored

By

AICTE-ATAL

Organized by

Department of Mechanical Engineering



INAGURAL AND VALIDICTORY REPORT

Submitted to Programme Officer

AICTE-ATAL

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

BANGALORE – 560 056

Programme was begins with invocation Mr. C Ashok, Instructor, Civil Engineering Department invoked the almighty for smooth running of the program. Dr. K.M. Purushothama. Professor and Chief Coordinator coordinated the events of the session. Dr. T.N/ Raju. Prof and HOD Department of Mechanical Engineering Welcomed all the dignitaries on and off the dais with flower bouquets after giving highlights of the proposed Workshop. Lighting the lamp was carried out by the chief guest Sri. K Jayanna, Former DGM, Bosch Ltd.- R&D. Sri. S Mariswamy, Honorable Chairman, PVP Welfare Trust, Dr. AIT. President of the day's program, guests of honor Sri. A R Krishna Murthy, Honorable Secretary, PVP Welfare Trust, Dr. AIT, Dr. Umesh Treasurer, Honorable Trustee, PVP Welfare Trust, Dr. AIT, Sri. P L Nanjundaswamy, Honorable Trustee, PVP Welfare Trust, Dr. AIT, Sri. S Shivamallu, Honorable Trustee, PVP Welfare Trust, Dr. AIT, Dr. M Mahadeva, Honorable Trustee, PVP Welfare Trust, Dr. AIT, Chief Coordinator Dr. K.M.Purushothama and Coordinators of the Event: Dr. Rajesh. M, Asst. prof, Dept. of ME, Dr. Rajesh Chandra. C, Asst. prof, Dept. of ME, Sharath Kamar.S, Asst. prof, Dept. of ME, Aravinda, Asst. prof, Dept. of ME,

Chief Guest address started off with a stress on the necessity of Industries and Institutes have been collaborating and collaborative research for over a century, but the rise of a global knowledge economy has intensified the need for strategic partnerships. The Institutes are imparting the basic knowledge and skill, but the Industry-Institute-Interaction will enable to undertake research by staff and students relevant to the Industry. The Industry-Institute-Interaction should be designed to run longer period for preparing the manpower of world class in the field of science and technology by inculcating the various skills required by the industry and thereby contributing to the economical and social development at large. **NEED OF INDUSTRY-INSTITUTE-INTERACTION (SKILL GAP ANALYSIS)** Skills and the knowledge are the engines of the economic growth and social development of any country that can respond more effectively and promptly to changes and opportunities of globalization. India is blessed with population of about 70% below the age of 35 years and youths are the most vibrant and dynamic segment as well as potentially most viable human recourse. At same time India is seriously handicapped with very weak and narrow knowledge base with 12.3% gross enrollment ratio as compared to 21% in China and 54.6% in developed countries and the world average is 23.2%. There is a need to convert the available huge human resource potential into a reality by expanding opportunities in the fields such as science technology, engineering, architecture, management etc.

Another Chief Guest **Vijayavithal Illal (Professional Expert, Ansys, Hypermesh, LS dyna in automotive domain)** address started off with a stress on the necessity of Industries and Institutes have been collaborating for over a century, and importance and advantage of this Faculty and students hands on

training (FDP/STTP/SDP) and using the above software for design and analysis to meet the industry requirements. By acquiring basic knowledge and skills from the industrial, R&D experts with their Vast and rich practical experience.

The presidential address by Professor & HOD .Dr.T.N.Raju highlighted the technical education to the common man and also getting all our Faculty members and students exposed to the state of art developments. All these things can happen only when the facilitators for our students i.e., teachers get exposed to all the latest developments in technical education through faculty development programs. Workshops, short term training, symposium etc.

Lastly Dr. K.M.Purushothama, Professor and Chief Coordinator of the FDP programme, Mechanical Engineering department proposed vote of thanks and was particularly amazed with the statistics of the chief guest and enlightening words of guests of honor. He also thanked the supporting hands for realizing today's program without much of a hitch.

The Valedictory Function of the Programme was begins with Dr. ranjith. asst professor, and coordinator of Workshop / programme in mechanical engineering department anchored the program by deftly handling the tasks on the agenda in the valediction., Pro. Ranjith, coordinator welcomed all the dignitaries especially the Chief guest **Dr. Josef gonsolvis.Rtd Professor and principal, st josef college Mangalore**, and another Chief guest **Sri.Bala kumar, Senior scientist, DRDO- Bangalore.** and **Vijayavithal Illal, CAD Vision- Bangalore(Professional Expert, Ansys, Hypermesh, LS dyna in automotive domain)** and a constant source of inspiration for one and all in this noble institution, and he welcomed All the programme coordinators and participants and state that their continuing support and wishes the same for many more such programs to come in the near future.

Guests of honor Sri. A R Krishna Murthy, Honorable Secretary, PVP Welfare Trust, Dr. AIT, Dr. Umesh Treasurer, Honorable Trustee, PVP Welfare Trust, Dr. AIT, Sri. P L Nanjundaswamy, Honorable Trustee, PVP Welfare Trust, Dr. AIT, Sri. S Shivamallu, Honorable Trustee, PVP Welfare Trust, Dr. AIT, Dr. M Mahadeva, Honorable Trustee, PVP Welfare Trust, Dr. AIT,

Four participants were spoken about the conduction and benefits of the program, and gave exhalent feedback and opinion about the FDP Programme, and then they said that high quality, maintained in the both of theory with practical class arrangement and it is a great opportunity to Faculty, students and researchers to work on design and analysis domain, This FDP helps to gain industrial knowledge on design and analysis by using different working platforms to know about the DESIGN AND ANALYSIS USING CATIA AND ANSYS(DAACAA-21) in future perspective, and also this FDP helps to gain industrial knowledge on design and analysis by using different working platforms, They signed positive

notes that they are ever ready to attend the future program of this sort. Due to time constraint and online feedback from all the participants was duly obtained and online test was conducted by the coordinators.

Chief Guest address started off with varied topics in the domain of teaching and research pedagogy, where the usage of technology during pandemic duration was the focus area, which gave insight to participants of various methodologies used and evolved in special circumstances and the changes required to deliver the best education while keeping quantity and quality at best.

Another Chief Guest address started off with detailed advantages of CATIA and ANSYS (Modeling and Analysis Software) CADE Training Center -Bangalore unit, its efforts to project the plus points in various fields such as auto motives, locomotive, Air Craft, Marine Etc. the need to generate the interest amongst the student and teaching fraternity, industrialist about the need to develop the technology by innovative ideas to project the industry news to the teaching arena. And industry in in future perspective. Technical sessions on the latest trends in the field of DESIGN AND ANALYSIS USIN CATIA AND ANSYS (DAACAA-21) can be easily arranged once we get acquainted with the personnel tied up with the Advanced software industry (CADD) and Automotive Industries. Then we spread its wings till the garden city of Bangalore and across the country only with the interest to realize the main aims of its inception.

Dr. K.M.Purushothama Chief Coordinator coordinated the events of the session gave the brief programme report of the 5 Days FDP programme and on line feedback and on line test was conducted for the participant, participation certificates were distributed to the participants by the AICTE-ATAL and followed the other dignitaries on the dias. This job was deftly done by Dr.K M Purushothama, Professor and Chief coordinator of this program with the help of the programme coordinators of our department.

Lastly Dr. K.M.Purushothama Professor and Chief Coordinator of the programme has extended the vote of thanks for all the Chief guest and Guests of Honors and participants, coordinators, audio, video system and who are all supported to successfully conducted this programme and also he extended regards to AICTE-ATAL.

The **FDP** received a lot of positive feedback from faculty members, Industrialists and research scholars from many universities of India. There were **184 enthusiastic participants registered and 94 participants approved in** total, on the basis of online test and attendance who took part in the **5-day** online FDP. Each session was of 90 minutes and included open questions, answer session. Google Meet was the platform used and the session links, feedback links were shared every evening for the day. The registered participants were engaged in a special WhatsApp group and by email. The recordings are being uploaded on the YouTube Channel of The Department and thus the program as concluded.

Mallikarjun V S

Email- mallu.43s@gmail.com

Mob- 9591687143

A successful serial entrepreneur has implemented at least 3 successful ventures in the past. He is responsible for operations, business development and strategic implementation of Projects. He has 10 years of Institutional experience and also responsible for maintaining Compliance of the Group Companies. He is also managing the Group's Corporate Affairs and driving few global assignments.

Primary DNA enables creation of New Products to drive Product Strategy and Growth. She brings Product Management Expertise and has led product innovation charter across large Enterprises, SMB's and Start-ups. Her product management lens encompasses scale and growth of existing products and enables leadership for New Product generation. Driven by his ceaseless curiosity to create world-class Products, he leads Product teams to discover Product Market gaps, Friction points, define Business models and leads Go-to-Market in order to generate awesome value for customers. he drives the journey of productization for his clients to shape profitable products across segments

TRAINER'S PROFILE FOR PROFESSIONAL ANSYS TRAINING

VIJAYAVITHAL ILLAL

Email: Vijayavitthalillal@gmail.com

Professional Summary

- *Presently 8 years of Experience in CAE domain.*
- *Expertise in ANSYS, HYPERMESH, LS PRE-POST, DYNA and HYPERVIEW*

Responsibilities

- *FE modeling and analysis of automobile and heavy engineering components*
- *Handling of Projets involving FE Hand calculation and simulation*
- *New product development of packaging and consumer goods*
- *FE modeling and analysis of Packaging material and*

*Consumer goods **FEA Projects Undertaken***

Project Title Evaluation of Stress Intensity Factor in a Axial Flow

Compressor Blade Tool ANSYS

Keywords Static analysis, Fracture, Fatigue, Crack

growth, Plasticity Domain Turbo- Machinery

Project Title **Structural analysis and
improvements of backhoe-loader arms
(Heavy engineering component)**

Tools **ANSYS**

Keywords **Linear static analysis, heavy**

engineering Domain **Structural, Off Highway**

Project Title Door trim Denting

simulation Tool HyperMesh, Radioss

Keywords Non Linear Static Analysis (Material and Contact non-linearity) Domain Automotive Engineering

Project Title Crashworthiness and evaluation of GE Dishwasher with simulation of Packaging material (corrugated board)

Tool HyperMesh, Radioss, Hyperview

Keywords Non Linear Static Analysis (Material and Contact non-linearity), plasticity Domain General Engineering

Software Skills

PRE-PROCESSOR : HYPERMESH, LS PRE

POST SOLVERS : ANSYS, RADIOSS,

LSDYNA

POST-PROCESSOR : ANSYS, HYPERVIEW, LS PRE POST

Amar.D. Andagi

E-mail: andagiamar@gmail.com

Contact numbers: 8073213166, 8485091802

Career objective:

To be a part of continuously developing organization and to work for personal and organizational growth.

Work experience:

1. Working as Design and development engineer in **Cimtrix systems Pvt.Ltd.** Bangalore from 2020 Dec.
2. Worked as Design Trainee in **Merritt innovative solutions, Bangalore from June 2019 to April 2020**
3. Worked as a quality control engineer in **Apex Auto Limited, Bangalore**, in fabrication, March-2017 to Aug-2017, Completed training on welding and welding defects in **Tata Hitachi Construction Machinery (THCM), Dharwad Plant.**
4. Worked as Asst.Prof.in TKIET, Kolhapur from 2013 to 2016.

Professional overview

Design:

- Good ability to generate, study and analyze design drawing, Application of **GD&T** and standards
- Tool knowledge: **Solid works, CatiaV5.**

Project work

- Design of special purpose machines for winding applications and automotive industries
- Maintenance and redesigning of machine tooling according to new specifications, handled complete line of autoloader machines.
- Design of winding motor of ceiling fan and its main parts like rotor and stator

- Performing design calculations and preparing parts according to requirements.
- Reverse engineering, preparation of sheet metal drawings.

Education Profile

Course	Branch	Institute	Year of passing	Result
PUC	Science	KCP science college	2007	63%
B. E	Industrial and Production Engineering	BLDECET, VTU, Vijayapura	2011	65%
MTech	computer integrated manufacturing	KLSGIT, VTU, Belgaum	2013	79%

Welding And other Inspection:

- Good familiar with welding parameters for the In Processes such as SMAW, GTAW, GMAW etc. and knowledge of NDT testing such as Penetrate test, Magnetic Particle test etc.
- Knowledge in welding standards of **ASME section IX** & Familiar with welding procedure qualification, welder qualification, Electrodes, Weld visual inspection etc.
- Familiar with material inspection, Dimensional check and Documentation as per construction materials standards such as **ASTM/ASME**.
- Witness of visual like Hydro test, Vacuum test, Leak test, sand blasting & painting, buffing etc.

P.G. Project:

“Effect of addition of Titanium on micro structure and mechanical properties of hyper eutectic Al-Si alloys”

1. Preparation of specimens through metal mold casting.
2. Wear testing the Al-Si specimens on Pin on disc wear testing machine.
3. Comparison tested of alloys.

U.G. Project:

Project Name: “Intelligent segregation of products moving on conveyor”

The model separates the products based on their color using optical sensors which can be used in the industries.

Technical qualification ASNT-NDT LEVEL-II

Ultrasonic testing (UT), Magnetic particle testing (MPT), Dye penetrate testing (DPT), Radio graphic testing (RT), QA/QC

Personal details:

Date of birth: 26-11-1989

Local address: shrike apartment, kengeri upanagar, Bangalore.

Permanent address: Plot No.51, Heralagi Plots, Shakti Nagar, Bijapur-586101

Declaration

I hereby declare that the information furnished above is true to the best of my knowledge.

Amar.D. Andagi



ATAL FDP Report

on

Recent Advances in Composites and Nano - Materials

Date: 13th to 17th December, 2021
Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, Bangalore

AICTE Training and Learning (ATAL)
Sponsored One Week Faculty Development (FDP) on
Recent Advances in Composites and Nano - Materials

5-Days AICTE sponsored workshop was conducted from 13th to 17th December 2021 in which around 162 participants from different parts of the country participated.

The speakers for the 5-day workshop on “**Recent Advances in Composites and Nano – Materials**” were:

Dr. V Sampath



Professor

Apr 1990 – Jul 1995: Lecturer
Jul 1995 – Apr 2006: Assistant Professor
Apr 2006– Mar 2009: Associate Professor
Mar 2009– till date: Professor
Phone: + 91 44 2257 4773
Email: vsampath@iitm.ac.in

Research Areas:

- Smart materials and shape memory alloys
- Physical metallurgy
- Composite materials
- Failure analysis

Dr. Devinder Yadav



Asst. Professor
Ph.D. - IIT Madras, 2015
Ph: +91-612-302-8752

Research Areas: Flash sintering of ceramics, Thermomechanical processing, Electron microscopy, EBSD and texture, Friction stir processing, Structure-property correlation.

Professional Experience: Research Associate, Dept. of Metallurgical and Materials Engineering, IIT Madras (March 2015 - June 2015)
Research Associate, Dept. of Materials Engineering, IISc Bangalore (June 2015 - March 2016)
Research Associate, Materials Science and Engineering Program, University of Colorado Boulder, USA (April 2016 - March 2018)

Dr. Ramesh M R



Associate Professor

Professional Experience:

National Institute of Technology Karnataka, Surathkal, Mangalore, Associate Professor, May 16, 2018 to Till date

National Institute of Technology Karnataka, Surathkal, Mangalore, Assistant Professor, December 28, 2012 to May 16, 2018

M.S.Ramaiah Institute of Technology, Bangalore, Associate Professor, April 19, 2011 to December 29, 2012

Reva Institute of Technology and Management, Bangalore, Assistant Professor, July 17, 2008 to April 16, 2011

Nitte Institute of Technology, Bangalore, Assistant Professor, February 25, 2008 to July 21, 2008

Nitte Institute of Technology, Bangalore, Lecturer, September 18, 2002 to July 24, 2003

E-mail:

rameshmr [at] nitk.edu.in

ramesdmt [at] gmail.com

Areas of Interest:

Thermal Spray Coatings, Thin films, Biomaterials, composites, Machining, Wear, Erosion, Oxidation & Hot Corrosion, Severe Plastic Deformation.

Dr. M V Reddy



Senior Professional
Researcher

Nouveau Monde Graphite, Montreal, Canada.

Specialization: Anode Materials Cathode Materials
Li-ion batteries Battery Materials synthesis &
Characterisation techniques electrolytes

Dr. Ravi Kumar N V



**Professor
Head of the Department**

Department of Metallurgical & Materials Engineering,
Head, Laboratory for High Performance Ceramics,
Central XRD Laboratory, Center for Ceramic
Technologies for Futuristic mobility, IITM

Research areas:

- Processing and characterisation of polymer derived ceramics (PDCs)
- Mechanical behaviour
- Biomimetics
- Diffraction & spectroscopy techniques

Dr. S Devaraj



Professor
School of Mechanical Engineering,
Reva University, Bangalore.

Research Areas:
Metals, Alloys, Composites

Dr. Ajeet K. Srivastav



Assistant Professor

Department of Metallurgical and Materials Engineering,
Visvesvaraya National Institute of Technology, Nagpur

Research Areas:

Crystal defects, Phase transformations, Alloy design,
Nanostructured materials

Dr. K. G. Pradeep



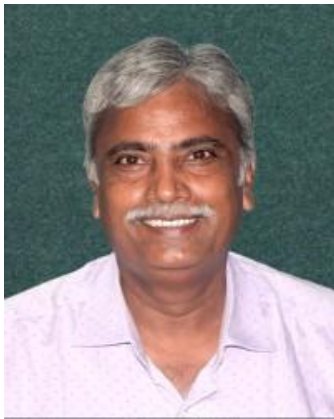
Assistant Professor

Department of Metallurgical and Materials
Engineering, Indian Institute of Technology, Madras.

Research Areas:

- Combinatorial alloy design
- Atom probe tomography and Field ion microscopy
- Magnetic materials
- Thin films and hard coatings
- Correlative microscopy
- Amorphous and nanocrystalline materials
- Mechanical behaviour of materials

Dr. Narendra Nath



Professor

Department of Mechanical Engineering,
NATIONAL INSTITUTE OF TECHNOLOGY,
Surathkal-575025, Mangalore, Karnataka.

Research Areas:

- Advanced Manufacturing and Technology,
- Non Traditional Machining of advanced materials,
- Severe Plastic Deformation,
- Shape Memory Alloy,
- Welding technology

Dr. Premkumar Govindappa



Researcher

The Pennsylvania State University
College of Medicine, Canada.

Research Areas:

Magnetic Refrigeration: Magnetocaloric materials and layering

- Active Magnetic Regenerator Model: Material properties, hysteresis impacts in multiple materials
- Hydrogen Operated Vehicular Engines
- Alternative Fuelled Low Emission

Engine/Vehicles: Hydrogen-CNG blend, Biodiesel, Biogas, Ethanol and Canola

- Automotive Vehicular Engine and Exhaust Emissions: Simulation, Modeling and CFD

Dr. Prabhudev M. S



Selection Grade Lecturer
Govt. Polytechnic, Kalgi, Gulbarga.

- **Research Areas:**
- Composites
- Tribology,
- Green Technology

Dr. Karodi Venkateswarlu



Senior Principal Scientist at CSIR-NAL,
Bangalore.

- **Research Areas:**
- Composites
- Ultra-fine grained aluminum alloys
- Advances in processing of Al alloys

Dr. Tamoghna Chakrabarti



Assistant Professor : Indian Institute of
Technology, Patna, India.

- **Research Areas:**
- Processing, sintering, characterization and mechanical behavior of ceramics, UHTCs.
- Computational modelling of sintering and related phenomena.
- Phase field modelling study of microstructural evolution in phase transformations. Composites

Dr. T.N Raju



Associate Professor, Department of Mechanical Engineering, Dr. Ambedkar Institute of Technology, Bangalore, Karnataka, India.

- **Research Areas:**
- Shape Memory Alloys.
- Composites.
- Foil Bearings

**A Brief Report about the AICTE Training and Learning (ATAL)
Sponsored One week Faculty Development Programme (FDP) on
“RECENT ADVANCES IN COMPOSITES AND NANO MATERIALS”
Date: 13th Dec’2021 – 17th Dec’2021**

The FDP received a overwhelming response of 162 participants and all the 162 participants were approved to attend the FDP program. Out of 162 participants 103 participants attended the program successfully and 101 received the certificates. The schedule of the program is given below:



Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY
Near Jaana Bharathi Campus, Off BDA Outer Ring Road, Mallahalli, Bengaluru, Karnataka 560 056
DEPARTMENT OF MECHANICAL ENGINEERING
AICTE TRAINING AND LEARNING (ATAL) SPONSORED
ONE WEEK FACULTY DEVELOPMENT PROGRAMME (FDP)
“RECENT ADVANCES IN COMPOSITES AND NANO MATERIALS”
Date: 13th Dec’2021 – 17th Dec’2021



Day	Date	Session	Time (IST)	Title of the Session	Resource Person & Designation	Organization Details
1	13.12.2021 MONDAY		09:15 AM to 09:30 AM	Inauguration	Dr Raju TN, HOD, Department of Mechanical Engineering.	
	13.12.2021 MONDAY	1	09:30 AM to 11:00 AM	Title: Shape Memory Alloys.	Name: Dr. V. Sampath Designation: Professor	Department of Metallurgical and Materials Engineering, Indian Institute of Technology, Madras.
	13.12.2021 MONDAY	2	11:30 AM to 01:00 PM	Title: Non-equilibrium composites by friction stir processing.	Name: Dr. Devinder Yadav Designation: Assistant Professor	Head, Department of Metallurgical and Materials Engineering IIT Patna.
	13.12.2021 MONDAY	3	02:30 PM to 04:00 PM	Title: Role of composite coatings in improving resistance to surface degradation.	Name: Dr. Ramesh M R Designation: Associate Professor	NITK, Surathkal, Mangalore.
2	14.12.2021 TUESDAY	4	09:30 AM to 11:00 AM	Title: Recent Advances in Nano materials and its composites for Energy Storage	Name: Dr. M V Reddy Designation: Senior Professional Researcher	Montreal, Canada .
	14.12.2021 TUESDAY	5	11:30 AM to 01:00 PM	Title: “Advanced ceramics and ceramic matrix composites for aerospace and automotive industries.”	Name: Dr. Ravi Kumar Designation: Professor & Head of the Department,	Department of Metallurgical & Materials Engineering, Head, Laboratory for High Performance Ceramics, Central XRD Laboratory, Center for Ceramic Technologies for Futuristic mobility, IITM.
	14.12.2021 TUESDAY	6	02:30 PM to 04:00 PM	Title: Spray atomization process for the development of ultrafine grains and metal matrix composites.	Name: Dr. S Devaraj Designation: Professor	School of Mechanical Engineering Reva University.
3	15.12.2021 WEDNESDAY	7	09:30 AM to 11:00 AM	Title: Metal oxide/ graphene nano composites for functional applications	Name: Dr. Ajeet K. Srivastav Designation: Assistant Professor	Department of Metallurgical and Materials Engineering, VNIT Nagpur.
	15.12.2021 WEDNESDAY	8	11:30 AM to 01:00 PM	Title: Correlative microscopic analysis of nano scale phase separation in metallic materials.	Name: Dr. K. G. Pradeep Designation: Assistant Professor	Department of Metallurgical and Materials Engineering, Indian Institute of Technology, Madras.
	15.12.2021 WEDNESDAY	9	02:30 PM to 04:00 PM	Title: Rolling and characterization of SMAs	Name: Dr. Narendra Nath Designation: Professor,	NITK, Surathkal, Mangalore.

4	16.12.2021 THURSDAY	10	09:30 AM to 11:00 AM	Title: Magnetic refrigeration: Performance evaluation of multilayer active magnetic regenerators with first order magnetic (FOM) materials.	Name: Dr. Premkumar Govindappa Designation: Researcher	British Columbia, Canada.
	16.12.2021 THURSDAY	11	11:30 AM to 01:00 PM	Title: Green tribology for survival and development.	Name: Dr. Prabhudev M.S Designation: Selection Grade Lecturer.	Govt. Polytechnic, Kalgi, Gulbarga.
	16.12.2021 THURSDAY	12	02:30 PM to 04:00 PM	Title: Composite Materials for Aircraft Applications	Name: Dr. K. Vijayaraju Designation: Director(Materials Management) and Head(TVHM)	Aeronautical Development Agency PB1718, Vimanapura post, Bangalore-17
5	17.12.2021 FRIDAY	13	09:30 AM to 11:00 AM	Title: Fabrication of Nano structured aluminum alloys using severe plastic deformation method	Name: Dr. Karodi Venkateswarlu Designation: Senior Principal Scientist	Materials Science Division, CSIR-National Aerospace Laboratories, Bangalore
	17.12.2021 FRIDAY	14	11:30 AM to 01:00 PM	Title: Ultrafast sintering of nano ceramics through flash sintering	Name: Dr. Tamoghna Chakrabarti Designation: Assistant Professor	Department of Metallurgical and Materials Engineering Indian Institute of Technology, Patna.
	17.12.2021 FRIDAY	15	02:30 PM to 04:00 PM	Title: Fabrication and characterization of shape memory alloys.	Name: Dr. Raju TN Designation: HOD, Associate professor	HoD, Department of Mechanical Engineering, Dr.AIT, Bangalore.
	17.12.2021 FRIDAY		04:00 PM to 04:30 PM	Online Assessment & Valedictory Function		

The FDP program was inaugurated by Dr.V Sampath, Professor, Department of Metallurgical and Materials Engineering, Indian Institute of Technology,

Madras on 13/12/2021 at 9.15 A.M. In his inaugural speech he stressed on the importance of materials in the applications of Defence, Aerospace and satellites. He called upon the participants to focus more on quality of the research which will result in end product which can be put into use in real time applications and industry. He advised to develop products which will be useful to society and improves the comfort level of the people and also reduce stress on the work especially work involving strenuous jobs.

The first day first session started with Dr.V. Sampath, Professor, Department of Metallurgical and Materials Engineering, Indian Institute of Technology, Madras on 13/12/2021 at 9.30 A.M who delivered a detailed lecture on the Introduction, applications of Smart Materials for present day technology. The second session was delivered by Dr. Devinder Yadav, Head and Assistant Professor, Department of Metallurgical and Materials Engineering, Indian Institute of Technology, Patna. His lecture was on synthesis and characterization of friction stir composites to enhance the strength and modification of surface for tribological properties. The third session was delivered by Dr. Ramesh M.R, Associated Professor, Department of Mechanical Engineering, NIT, Surathkal. His lecture was focused on the development surface coatings to avoid degradation of surfaces. He also covered the topics on how to overcome surface degradation due to corrosion with special emphasis on the use of super alloys. He also covered few topics on tribology.

The second day i.e, 14/12/2021 which happens to be **National Energy Conservation Day** started with a talk by Dr.M.V Reddy from Montreal, Canada, who delivered a lecture on Battery technologies and new developments in the field of battery materials, its synthesis, characterization. He gave details about the future requirements of batteries on how to achieve and overcome the challenges in the development of battery materials for future. The second session was delivered by Dr. Ravikumar, Professor and Head, Department of Metallurgical and Materials Engineering, Indian Institute of Technology, Madras who delivered a detailed lecture on the requirements of industries and different applications especially in the defence sector on the need of development of ceramic technology in their use. He also quoted a few examples where the researchers have the potential to conduct research for the development of ceramic technology. He also emphasized the need for development of high temperature materials and described the basic principles about ceramic technology. The third session was delivered by Dr. Devaraj, Professor, Department of Mechanical Engineering, Reva University, Bangalore, His lecture focussed on the development of ultra fine composites using spray atomization technique. He describe how to develop the spray atomization technique for different alloys of aluminium and its importance in industrial applications.

The third day i.e., on 15/12/21 first session was delivered by Dr. Ajeet K Srivastav, Assistant Professor, Department of Metallurgical and Materials Engineering, VNIT Nagpur. His lecture focused on the recent developments and technologies in the area of Metal oxide/ graphene nano composites for functional applications. The lecture focused on different metal oxides and graphene nano composites and their use in the development of new battery materials for improved storage capacity and efficiency. He gave detailed account of synthesis of graphene and also on the characterization of graphene nano composites. He stressed on the qualities of graphene and how we can use graphene as a functional material for composites and in particular a potential candidate for battery material. The second session was delivered by Dr.K.G Pradeep Assistant Professor, Department of Metallurgical and Materials Engineering, Indian Institute of Technology, Madras who delivered a detailed lecture on Correlative microscopic analysis of nano scale phase separation in metallic materials. He gave detailed account of synthesis and characterization of nano materials. He also emphasized the microscopic analysis of nano materials giving special importance to phases at nano scale. The third session was delivered by Dr, Narendranath S, Professor, Department of Mechanical Engineering, NIT Surathkal, Mangalore. He discussed in detail the importance of composition in shape memory alloys. He also stressed on the influence of composition on the properties of the shape memory alloys especially shape memory effect. The lecture also discussed the how rolling of shape memory alloys is carried out and how as cast and homogenized shape memory alloys in particular NiTi alloys behave with respect to transformation temperatures and shape memory effect. The lecture also discussed about the characterization techniques that should followed for shape memory alloys.

The fourth day i.e., on 16/12/21 first session was delivered by Dr. Premkumar Govindappa, Researcher at British Columbia University, Canada on the topic Magnetic refrigeration: Performance evaluation of multilayer active magnetic regenerators with first order magnetic (FOM) materials. The lecture concentrated on the basic and fundamental concepts of magnetic refrigeration. Potential candidates for magnetic refrigeration and their performances. How to evaluate the performance parameters of magnetic materials and also how to determine their efficiency. The topic also discussed about the performance evaluation of multilayer active magnetic regenerators with first order magnetic materials. The second session was delivered by Dr. Prabhudeva S, Selection Grade Lecturer, Kalagi on the topic Green tribology for survival and development. The topic majorly covered the synthesis of Aluminium composites with reinforced with nano materials and micromaterials. The fundamentals of tribology. The various types of wear and its affect on the performance of the composite materials in different environments and applications. The topic also dealt in detail the the various methods that should

be adopted for green tribology for sustainability and future developments. The third session which was supposed to be delivered by Dr. Vijayaraju, Technical Director of ADA was cancelled due to sudden demise of his very close relative. Instead Dr. Devaraj S, Professor, Department of Mechanical Engineering, Reva University, Bangalore, His lecture focussed on the characterization of micro and nanomaterials. The topic covered in detail the optical microscopy, scanning electron microscopy, Atomic force microscopy and transmission microscopy. The topic was well covered with the help of suitable examples and applications and also detailed about using the electron microscopy for identification secondary phase particles, electron dispersive spectroscopy and other techniques.

The fifth day i.e., 17/12/21 first session was delivered by Dr. Karodi Venkateswarlu, Senior Principal Scientist, Materials Science Division, CSIR-National Aerospace Laboratories, Bangalore on the topic Fabrication of Nano structured aluminum alloys using severe plastic deformation method. The topic discussed in detail the various aluminium alloys used for aerospace applications. The various aluminium composites used for aerospace applications. The effect of various reinforcements on the mechanical properties of aluminium composites. The lectured focused majorly on fabrication of nano structured aluminium alloys using various severe deformation techniques such as Equi channel Angular Pressing (ECAP), High Pressure Torsion (HPT), Equi channel Angular Extrusion, Accumulative roll bonding, Repetitive corrugation and straightening, Asymmetric rolling, Mechanical alloying and Surface treatments. The second session was delivered by Dr. Tamoghna Chakrabarti, Assistant Professor, Department of Metallurgical and Materials Engineering, Indian Institute of Technology, Patna. His lecture was on Ultrafast sintering of nano ceramics through flash sintering. The topic discussed in detail the various sintering processes such as conventional sintering, spark plasma sintering, flash sintering etc. The topic covered how sinter nano ceramics in particular using flash sintering. What are the advantages of using ultraflash sintering for nanoceramics and how to they useful for reducing the time of sintering at the same achieving desirable properties. The third session was delivered by Dr.T.N Raju, Associate Professor and Head, Department of Mechanical Engineering, Dr. Ambedkar Institute of Technology, Bangalore on the topic Fabrication and characterization of Shape memory alloys. The lecture focussed on the fundamentals of smart materials and shape memory alloys. The lecture discussed in detail the various types of shape memory alloys i.e., shape memory alloys for low temperature applications and high temperature applications. The various shape memory alloys available for low as well as high temperature applications. The topic discussed in detail the various fabrication methods adopted for different shape memory alloys. The topic discussed in detail the processes that should be followed right from melting to obtaining shape

memory alloys in different forms such wires and sheets. The effect of composition, processing, ageing and heat treatments that affect the transformation temperatures as well as shape memory effect and superelasticity was discussed in detail. The topic covered the various characterization techniques such as DSC, OM, SEM, TEM and DMA which are extensively used for analysis of various parameters which affect the functionality of Shape memory alloys.

The fourth session was Valedictory function where the coordinator of the faculty development program Dr.T.N Raju thanked the experts for delivering the lectures. He also thanked the funding agency AICTE and college Principal and Management for providing the opportunity to conduct the FDP. He also thanked the participants for their active participation the Faculty Development Program. He highlighted the efforts taken by AICTE in organizing the FDPs and STTPs which is benefitting the faculty in acquiring knowledge and delivering the same to the student community. The coordinator was very grateful and thanked the Ministry of HRD and AICTE for their sincere efforts in improving the quality of education through conduction of FDPs, STTPS, Workshops and Conferences. After the valedictory function feedback from the participants and quiz was conducted.

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