HEARTY WELCOME

to

MME
Contents

• THE DEPARTMENT – A GLANCE
• Vision and Mission of Institute
• Vision and Mission of Department
• Faculty members
• Supporting staff
• Academic Achievements
• Awards and achievements
• Laboratory Facilities
THE DEPARTMENT – A GLANCE

• Department started in 1967
• Department offers
  • B. Tech in Metallurgical and Materials Engineering (MME)(1967)
  • M.S (By Research) and Ph.D.
• B. Tech MME got accreditation for 5 years in 2007 and 6 years from July 2014 and 6 years from 2022.
• All M. Tech Programmes are accredited
• First Ph.D. Produced – 1986
• QIP Center for PG and Ph.D programmes
• Three Professors of our Department served as the Directors of NITs
• Got Best Department Award for the year 2009 and 2021
• Leads the Institute with respect to “sponsored projects”
Best Department awards

NATIONAL INSTITUTE OF TECHNOLOGY
TIRUCHIRAPPALLI - 620 015.

In recognition of the academic and research distinctions achieved

Department of Metallurgical and Materials Engineering is adjudged

THE BEST DEPARTMENT

for the year 2008 - 2009.

Director

National Institute of Technology, Tiruchirappalli

INSTITUTE DAY 2021
Certificate of Recognition

Presented to Department of Metallurgical and Materials Engineering in appreciation of their contribution to the growth of the Institute through Teaching - Learning & Resources, Research & Professional Practice, Graduation Outcome and Outreach & Inclusivity in the Engineering discipline

Dr. Mridula Sathish
Director
Institute Vision and Mission

VISION
To be a university globally trusted for technical excellence where learning and research integrate to sustain society and industry.

MISSION
• To offer undergraduate, postgraduate, doctoral and modular programmes in multi-disciplinary / inter-disciplinary and emerging areas.
• To create a converging learning environment to serve a dynamically evolving society.
• To promote innovation for sustainable solutions by forging global collaborations with academia and industry in cutting-edge research.
• To be an intellectual ecosystem where human capabilities can develop holistically.
Department of MME - Vision and Mission

VISION
To evolve into a globally recognised department in the frontier areas of Metallurgical and Materials Engineering

MISSION
• To produce Metallurgical and Materials Engineering graduates having professional excellence
• To carry out quality research having social and industrial relevance
• To provide technical support to budding entrepreneurs and existing industries
<table>
<thead>
<tr>
<th>Faculty</th>
<th>Designation</th>
<th>PhD from</th>
<th>Expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. T. SRINIVASA RAO</td>
<td>Professor, HAG <em>(Former Director NITW)</em></td>
<td>Bharathidasan University, Trichy</td>
<td>Powder Metallurgy, Foundry</td>
</tr>
<tr>
<td>Dr. S. RAMAN SANKARANARAYANAN</td>
<td>Professor</td>
<td>Drexel, USA</td>
<td>Process Metallurgy, Quality Mgmt.</td>
</tr>
<tr>
<td>Dr. B. RAVISANKAR</td>
<td>Professor</td>
<td>Bharathiar University, Coimbatore</td>
<td>Metal Forming, Mechanical Behaviour</td>
</tr>
<tr>
<td>Dr. S.P.KUMARESH BABU</td>
<td>Professor</td>
<td>NIT Trichy</td>
<td>Foundry Metallurgy, Process Metallurgy</td>
</tr>
<tr>
<td>Dr. S. KUMARAN</td>
<td>Professor</td>
<td>NIT Trichy</td>
<td>Powder Metallurgy, Nano Materials</td>
</tr>
<tr>
<td>Faculty</td>
<td>Designation</td>
<td>PhD from</td>
<td>Expertise</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------------------</td>
<td>-----------------------------------</td>
<td>---------------------------------------------------------</td>
</tr>
<tr>
<td>Dr. S. MUTHUKUMARAN</td>
<td>Professor and Head</td>
<td>BIT Mesra</td>
<td>Welding, NDT</td>
</tr>
<tr>
<td>Dr. N. RAMESH BABU</td>
<td>Professor</td>
<td>IIT Madras</td>
<td>Biomaterials, Ceramics</td>
</tr>
<tr>
<td>Dr. K. SIVA PRASAD</td>
<td>Professor</td>
<td>IIT Madras</td>
<td>Mechanical Behaviour, Characterization</td>
</tr>
<tr>
<td>Dr. S. JEROME</td>
<td>Associate Professor</td>
<td>NIT Trichy</td>
<td>Welding, Composites</td>
</tr>
<tr>
<td>Dr. NAGARAJAN.D</td>
<td>Assistant Professor</td>
<td>The University of Queensland, Australia</td>
<td>Metal Forming Processes (Sheet and Bulk), Functionally Gradient Materials, Light Alloys Development</td>
</tr>
<tr>
<td>Dr. KARTHIK.V</td>
<td>Assistant Professor</td>
<td>IIT Kharagpur</td>
<td>Computational Materials Engineering, Surface Engineering, Nano Fluids</td>
</tr>
<tr>
<td>Faculty</td>
<td>Designation</td>
<td>PhD from</td>
<td>Expertise</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------------------</td>
<td>---------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Dr. A. Muthuchamy</td>
<td>Assistant Professor</td>
<td>IIT Madras</td>
<td>Composite materials, Welding</td>
</tr>
<tr>
<td>Dr.-Ing. Prince Gideon Kubendran Amos</td>
<td>Assistant Professor</td>
<td>KIT, Germany</td>
<td>Computational Materials Science</td>
</tr>
<tr>
<td>Dr. Nimu Chand Reger</td>
<td>Assistant Professor</td>
<td>MNIT Jaipur</td>
<td>Heat Treatment, Materials Science</td>
</tr>
<tr>
<td>Dr. Illa Mani Pujitha</td>
<td>Assistant Professor</td>
<td>IIT, Hyderabad</td>
<td>Energy storage batteries, carbon materials, Biopolymers, solid-state electrolytes</td>
</tr>
<tr>
<td>Dr. S. Anand</td>
<td>Assistant Professor</td>
<td>McMaster University, Canada</td>
<td>Modeling of Extractive Metallurgical Processes</td>
</tr>
<tr>
<td>Dr. G. Vinothkumar</td>
<td>Assistant Professor</td>
<td>Deakin University Australia</td>
<td>Alloy design, solid state reactions, grain boundary engineering</td>
</tr>
<tr>
<td>NAME</td>
<td>CONTRIBUTION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>--------------</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **Dr. T SRINIVASA RAO**<br>(Professor (HAG)) | **Expertise:** Powder Metallurgy, Foundry  
**Experience:** 38 (36 Years Academic + 2 Years Industry)  
**Publications (Journals and Conferences):** 101  
**Projects ongoing / Completed:** 01/09  
**Total Worth of Projects:** 8.80 Cr  
**PhD Completed / Ongoing:** 07/01  
**M.S Completed / Ongoing:** -/-  
**M.Tech Completed / Ongoing:** 45  
**Lab Established:** Powder Metallurgy Laboratory  
**Addl. Responsibilities:** Nodal Officer (TEQIP), Head-MME, Head T&P, PG Controller of Exams.  
**Notable Achievement:** Director (NIT Warangal 2011 to 2016), BOYSCAST Fellowship  
**Worth of Facilities Established:** 500 Lakhs |
| **Dr. S RAMAN SANKARANARAYANAN**<br>(Professor) | **Expertise:** Process Metallurgy, Process Modelling, Quality Mgt.  
**Experience:** 32 yrs  
**Publications (Journals and Conferences):** 50  
**Projects ongoing / Completed:** 05  
**Total Worth of Projects:** 41 lakhs  
**PhD Completed / Ongoing:** 05 / 05  
**M.S Completed / Ongoing:** 02  
**M. Tech Completed / Ongoing:** 35 / 01  
**Lab Established:** Process Modelling Lab & Process Metallurgy Lab  
**Addl. Responsibilities:** Head MME (2012-14), Asso. Dean (2006-07), Dean ID (2018-21)  
**Notable Achievement:** Active Interface with Steel Industry  
**Worth of Facilities Established:** 100 Lakhs during HoD tenure |
<table>
<thead>
<tr>
<th>Name</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dr. B. RAVISANKAR</strong>&lt;br&gt;(Professor)</td>
<td><strong>Expertise:</strong> Metal Forming, Super Plastic Deformation  &lt;br&gt;<strong>Experience:</strong> 35 years  &lt;br&gt;<strong>Publications (Journals and Conferences):</strong> 120  &lt;br&gt;<strong>Projects ongoing / Completed:</strong> 01 / 12  &lt;br&gt;<strong>Total Worth of Projects:</strong> Rs. 400 lakhs  &lt;br&gt;<strong>PhD Completed / Ongoing:</strong> 10 / 04  &lt;br&gt;<strong>M.S Completed / Ongoing:</strong> 03 / 03  &lt;br&gt;<strong>M.Tech Completed / Ongoing:</strong> 40 / 06  &lt;br&gt;<strong>Lab Established:</strong> Metal forming Lab, ECAP and Diffusion Bonding  &lt;br&gt;<strong>Addl. Responsibilities:</strong> Programme Co-ordinator M.Tech (MSE)  &lt;br&gt;<strong>Notable Achievement:</strong> Recipient of Young Scientist Award  &lt;br&gt;<strong>Worth of Facilities Established:</strong> Rs.150 lakhs</td>
</tr>
<tr>
<td><strong>Dr. S.P. KUMARESH BABU</strong>&lt;br&gt;(Professor)</td>
<td><strong>Expertise:</strong> Foundry, Corrosion Engg, Surface Engg.  &lt;br&gt;<strong>Experience:</strong> 13 (Industry) + 12 (Teaching)  &lt;br&gt;<strong>Publications (Journals and Conferences):</strong> 90  &lt;br&gt;<strong>Projects ongoing / Completed:</strong> 01 / 03  &lt;br&gt;<strong>Total Worth of Projects:</strong> Rs. 370 lakhs  &lt;br&gt;<strong>PhD Completed / Ongoing:</strong> 09 / 13  &lt;br&gt;<strong>M.S Completed / Ongoing:</strong> 03 / 08  &lt;br&gt;<strong>M.Tech Completed / Ongoing:</strong> 95 / 08  &lt;br&gt;<strong>Lab Established:</strong> Foundry, Corrosion and Surface Engineering Lab  &lt;br&gt;<strong>Addl. Responsibilities:</strong> HoD-MME, Head - CECASE  &lt;br&gt;<strong>Notable Achievement:</strong> Got High value Project from CMPDI  &lt;br&gt;<strong>Worth of Facilities Established:</strong> Rs.400 lakhs</td>
</tr>
<tr>
<td>NAME</td>
<td>CONTRIBUTION</td>
</tr>
<tr>
<td>------</td>
<td>--------------</td>
</tr>
<tr>
<td><strong>Dr. S. KUMARAN</strong>  &lt;br&gt;(Professor)</td>
<td><strong>Expertise:</strong> Powder Metallurgy and Alloy Development  &lt;br&gt;<strong>Experience:</strong> 23 yrs + 1 yr (Industry)  &lt;br&gt;<strong>Publications (Journals and Conferences):</strong> 161  &lt;br&gt;<strong>Projects ongoing / Completed:</strong> 03 / 20  &lt;br&gt;<strong>Total Worth of Projects:</strong> 11.43 Cr  &lt;br&gt;<strong>PhD Completed / Ongoing:</strong> 21 / 15  &lt;br&gt;<strong>M.S Completed / Ongoing:</strong> 2 / 0  &lt;br&gt;<strong>M.Tech Completed / Ongoing:</strong> 75 / 00  &lt;br&gt;<strong>Lab Established:</strong> Powder processing, Energy materials  &lt;br&gt;<strong>Addl. Responsibilities:</strong> Warden, NITFEST, METTLE- staff advisor, HoD-MME (2018-2021)  &lt;br&gt;<strong>Notable Achievement:</strong> BOYSCAST fellowship  &lt;br&gt;<strong>Worth of Facilities Established:</strong> 600 lakhs</td>
</tr>
<tr>
<td><strong>Dr. S. MUTHUKUMARAN</strong>  &lt;br&gt;(Professor and Head)</td>
<td><strong>Expertise:</strong> Welding, NDT  &lt;br&gt;<strong>Experience:</strong> 19 yrs  &lt;br&gt;<strong>Publications (Journals and Conferences):</strong> 72  &lt;br&gt;<strong>Projects ongoing / Completed:</strong> 02 / 05  &lt;br&gt;<strong>Total Worth of Projects:</strong> 150 lakhs  &lt;br&gt;<strong>PhD Completed / Ongoing:</strong> 07 / 07  &lt;br&gt;<strong>M.S Completed / Ongoing:</strong> 02 / 04  &lt;br&gt;<strong>M.Tech Completed / Ongoing:</strong> 65 / 09  &lt;br&gt;<strong>Lab Established:</strong> Advanced Welding Lab &amp; NDT Lab  &lt;br&gt;<strong>Addl. Responsibilities:</strong> HoD-MME (present), Department Co-Ordinator B.Tech NBA, Head –IPR, PI of Indo – UK Newton -Bhabha Project  &lt;br&gt;<strong>Notable Achievement:</strong> Worth of Facilities Established: 150 Lakhs</td>
</tr>
</tbody>
</table>
## FACULTY PROFILES

<table>
<thead>
<tr>
<th>NAME</th>
<th>CONTRIBUTION</th>
</tr>
</thead>
</table>
| Dr. N. RAMESH BABU (Professor)   | **Expertise:** Biomaterials, Ceramic Materials  
**Experience:** 17+ yrs  
**Publications (Journals and Conferences):** 100+  
**Projects ongoing / Completed:** 11/01  
**Total Worth of Projects:** Rs 350 lakhs (As PI)  
**PhD Completed / Ongoing:** 10 / 05  
**M.S Completed / Ongoing:** 01 / -  
**M.Tech Completed / Ongoing:** 40 / 03  
**Lab Established:** Biomaterials, Ceramic Materials and Advanced Characterization Lab (XRD & ESEM)  
**Notable Achievement:** Best PhD Award, Best Paper Awards, Indo-Russia Joint Projects  
**Worth of Facilities Established:** 600 lakhs |
<table>
<thead>
<tr>
<th>NAME</th>
<th>CONTRIBUTION</th>
</tr>
</thead>
</table>
| **Dr. K. SIVA PRASAD**<br>(Professor) | **Expertise:** Mechanical Behaviour, Materials Characterization, Metal additive manufacturing.  
**Experience:** 15 yrs  
**Publications (Journals and Conferences):** 170  
**Projects ongoing / Completed:** 03 / 05  
**Total Worth of Projects:** 2.0 Cr  
**PhD Completed / Ongoing:** 11 / 06  
**M.S Completed / Ongoing:** 02 / NIL  
**M.Tech Completed / Ongoing:** 40 / 04  
**Lab Established:** Advanced Materials Processing Lab  
**Addl. Responsibilities:** Ex - Asso. Dean (R & C) (2012 – 15), Ex-member Hospital committee  
**Notable Achievement:** Recipient of SDT – TRA Faculty Fellowship, ASEM-DUO faculty fellowship  
**Worth of Facilities Established:** 100 lakhs |
| **Dr. S. JEROME**<br>(Associate Professor) | **Expertise:** Welding Engineering, Wire Arc Additive Manufacturing  
**Experience:** 16 yrs  
**Publications (Journals and Conferences):** 40  
**Projects ongoing / Completed:** 04  
**Total Worth of Projects:** Rs 80 lakhs  
**PhD Completed / Ongoing:** - 04 / 06  
**M.S Completed / Ongoing:** - 01 / 02  
**M.Tech Completed / Ongoing:** 70 / 08  
**Lab Established:** Welding Lab  
BoG Member (2020-22), Treasurer RECAL (2022 onwards)  
**Notable Achievement:** Subject Expert – Additive Manufacturing Group – Indian Air force  
**Worth of Facilities Established:** Rs.60 Lakhs |
<table>
<thead>
<tr>
<th>NAME</th>
<th>CONTRIBUTION</th>
</tr>
</thead>
</table>
| **Dr. Nagarajan D**  
(Assistant Professor) | **Expertise:** Metal Forming Processes (Sheet and Bulk), Functionally Gradient Materials, Light Alloys Development  
**Experience:** 11 yrs  
**Publications (Journals and Conferences):** 19 / 17  
**Projects ongoing / Completed:** 03 / 01  
**Total Worth of Projects:** 169.27 Lakhs  
**PhD Completed / Ongoing:** -- / 05  
**M.S Completed / Ongoing:** -- / 01  
**M.Tech Completed / Ongoing:** 16 / 05  
**Lab Established:** MTLR35 - Metal Forming and Particulate Processing Laboratory  
**Addl. Responsibilities:** Faculty In-charge for Dept. Time table and MIS, Faculty Advisor - MMEA  
**Notable Achievement:** Developed rocket nozzle for ISRO project & Best Performer Award for AY2022-2023 from NITT.  
**Worth of Facilities Established:** Lab MTLR35 – INR 75 Lakhs; Research – INR 105 Lakhs |
| **Dr. Karthik V**  
(Assistant Professor) | **Expertise:** Computational Materials Engineering, Surface Engineering, Nanomaterials  
**Experience:** 05 yrs  
**Publications (Journals and Conference Proceedings):** 08 / 12  
**Projects ongoing / Completed:** 02 / --  
**Total Worth of Projects:** 26.0 lakhs  
**PhD Completed / Ongoing:** -- /05  
**M.S Completed / Ongoing:** Nil  
**M.Tech Completed / Ongoing:** 16 /07  
**Lab Established:** Polymer and Composite Laboratory  
**Addl. Responsibilities:** Class committee Chairman (2020-2024 Btech MME), Warden (Zircon-C and Beryl Hostels), Faculty Advisor (Task Force Club)  
**Notable Achievement:** Best Performer Award 2022 from NITT  
**Worth of Facilities Established:** 48.0 lakhs (Capital Fund) |
<table>
<thead>
<tr>
<th>NAME</th>
<th>CONTRIBUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dr. A. MUTHUCHAMY</strong>&lt;br&gt;(Assistant Professor)</td>
<td><strong>Expertise:</strong> Physical Metallurgy, Powder Metallurgy, Welding Process and Metallurgy, Direct-energy deposition&lt;br&gt;<strong>Experience:</strong> 8.5 Years&lt;br&gt;<strong>Publications (Journals and Conferences):</strong> 28 + 2&lt;br&gt;<strong>Projects ongoing / Completed:</strong> 01&lt;br&gt;<strong>Total Worth of Projects:</strong> Rs. 15 lakhs&lt;br&gt;<strong>PhD Completed / Ongoing:</strong> 00/01&lt;br&gt;<strong>M.S Completed / Ongoing:</strong> -&lt;br&gt;<strong>M.Tech Completed / Ongoing:</strong> 03/01&lt;br&gt;<strong>Lab Established:</strong> Welding Simulation Laboratory&lt;br&gt;<strong>Addl. Responsibilities:</strong> Ph.D. &amp; MS Admission Coordinator&lt;br&gt;<strong>Notable Achievement:</strong> Working Collaboration with Data Science Department of St. Joseph&lt;br&gt;<strong>Worth of Facilities Established:</strong> 4.3 Lakhs</td>
</tr>
<tr>
<td><strong>Dr. -ING PRINCE GIDEON KUBENDRAN AMOS</strong>&lt;br&gt;(Assistant Professor)</td>
<td><strong>Expertise (Research Interest):</strong> AI-based microstructure analysis, spatio-temporal evolution of microstructure, factor analysis of alloying elements.&lt;br&gt;<strong>Experience:</strong> 02 yrs&lt;br&gt;<strong>Publications (Journals and Conferences):</strong> 21 / 3&lt;br&gt;<strong>Projects ongoing / Completed:</strong> 01 / 00&lt;br&gt;<strong>Total Worth of Projects:</strong> 35 Lakhs&lt;br&gt;<strong>PhD Completed / Ongoing:</strong> -- / 01&lt;br&gt;<strong>M.S Completed / Ongoing:</strong> Nil&lt;br&gt;<strong>M.Tech Completed / Ongoing:</strong> 02 / 06&lt;br&gt;<strong>Lab Established:</strong> Theoretical Metallurgy Lab (Research)&lt;br&gt;<strong>Addl. Responsibilities:</strong> Department Data Coordinator, IIC member, Innovative Ambassador and such&lt;br&gt;<strong>Notable Achievement:</strong> Working Collaboration with Data Science Department of St. Joseph&lt;br&gt;<strong>Worth of Facilities Established:</strong> 20 Lakhs (HPC)</td>
</tr>
<tr>
<td>NAME</td>
<td>CONTRIBUTION</td>
</tr>
<tr>
<td>---------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Dr. NIMU CHAND REGER      | **Expertise:** Heat Treatment, Polymers, Ceramics and composites  
Experience: (05 Years Teaching +03 Years Industrial Experience)  
Publications (Journals and Conferences): 05/03  
M.Tech Completed / Ongoing: 04  
Lab Established: Ceramic lab |
| Dr. ILLA MANI PUJITHA     | **Expertise:** Energy storage Batteries, Solid-State Electrolytes, Bacterial Cellulose, Carbon Materials  
Experience: 05 Months  
Publications (Journals and Conferences): 08/00  
Notable Achievement: Recipient of Gandhian Young Technological Innovation Award 2015 |
<table>
<thead>
<tr>
<th>Name</th>
<th>Contribution</th>
</tr>
</thead>
</table>
| Dr. ANAND S (Assistant Professor) | **Expertise:** Mathematical and Physical modelling in Extractive Metallurgy  
**Experience:** 5 (Industry)  
**Publications (Journals and Conferences):** 10 |
| Dr. G. Vinothkumar (Assistant Professor) | **Expertise:** Solid-state phase transformation, Grain boundary engineering, alloy development  
**Experience:** 1.5 years  
**Publications (Journals and Conferences):** 03/00 |
## Academic Achievements

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Publications</th>
<th>Citation</th>
<th>H-index</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>96</td>
<td>1448</td>
<td>219</td>
</tr>
<tr>
<td>2019</td>
<td>171</td>
<td>1887</td>
<td>231</td>
</tr>
<tr>
<td>2020</td>
<td>89</td>
<td>1946</td>
<td>236</td>
</tr>
<tr>
<td>2021</td>
<td>74</td>
<td>2201</td>
<td>241</td>
</tr>
<tr>
<td>2022</td>
<td>56</td>
<td>2294</td>
<td>241</td>
</tr>
</tbody>
</table>
• Only Engineering department in NITT published in Nature-Scientific reports based on the work done at NITT.

• Nucleation and growth of TiAl₃ intermetallic phase in diffusion bonded Ti/Al Metal Intermetallic Laminate. Nature – scientific reports (2018) 8:16797, DOI:10.1038/s41598-018-35247-0

• Excellent Combination of Tensile ductility and strength due to nanotwinning and a bimodal structure in cryorolled austenitic stainless steel”, G. Venkata Sarath Kumar, K. R. Mangipudi, G. V. S. Sastry, Lalit Kumar Singh, S. Dhanasekaran & K. Sivaprasad, SCIENTIFIC REPORTS (NATURE PUBLISHING GROUP), 10, 2020, 354. HTTPS://DOI.ORG/10.1038/S41598-019-57208-X

• Nucleation and growth of TiAl3 intermetallic phase in diffusion bonded Ti/Al Metal Intermetallic Laminate”, N. Thiyaneshwaran, K.Sivaprasad, B.Ravisankar, SCIENTIFIC REPORTS (NATURE PUBLISHING GROUP) 8, Article Number: 16797 (2018), (DOI:10.1038/s41598-018-35247-0) ISSN 2045-2322
Administrative Contribution to NIT Trichy and to other NITs

Prof. V. Sivan - Director In-charge, NIT Trichy (2010)
Prof. K.S. Pandey - Director, MANIT Bhopal (2005-2009)
Prof. T. Srinivasa Rao (HAG) - Director, NIT Warangal (2011-2016)
Prof. S. Natarajan (HAG) - TEQIP Nodal Officer (2009 -11) and Former Chairman CECASE., NITT
Prof. S Raman Sankaranarayanan, Dean Instt. Development & Alumnus Relation, NITT
Prof. V. Muthupandi (HAG) – Chairman, School Committee and Placement Officer, NITT
Prof. S. Kumaran - Warden, NITT FEST Staff Incharge (2011), ARC Member, President-TANITT
Dr. S. Muthukumaran, Head-IPR and Convener-Innovation Centre, NITT, Former Dean (R&C)
Dr. S.P. Kumaresh Babu – TEQIP Nodal Officer (2009-11) and Chairman CECASE, NITT
Dr. S. Jerome - Convener of Hostels (2012-2015) and Associate Dean (SW) (2012 -20), NITT, BoG member (2020-22), Currently Treasurer for RECAL
Dr. K. Siva Prasad - Associate Dean (R & C) (2012-15), NITT
Dr. N. Ramesh Babu - Associate Dean (R & C) (2015-17), Dy. Registrar (R&C), NITT (2017-20)
Dr. D Nagarajan - Currently Associate Dean (P&D-Procurement)
# NON-TEACHING STAFF

<table>
<thead>
<tr>
<th>S.No</th>
<th>Name</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mr M.Ramaiah</td>
<td>Senior Technical Assistant (SG II)</td>
</tr>
<tr>
<td>2</td>
<td>Mr M.Murugesan</td>
<td>Technical Assistant</td>
</tr>
<tr>
<td>3</td>
<td>Mr. Abhiraj R.I</td>
<td>Technical Assistant</td>
</tr>
<tr>
<td>4</td>
<td>Mr. V. Mariesan</td>
<td>Senior Assistant</td>
</tr>
<tr>
<td>5</td>
<td>Mr.KR. Azhagappan</td>
<td>Senior Technician</td>
</tr>
<tr>
<td>6</td>
<td>Mr. Dhinakaran R</td>
<td>Technician</td>
</tr>
<tr>
<td>7</td>
<td>Mr. C. Santhanaraj</td>
<td>Office Attendant</td>
</tr>
<tr>
<td>8</td>
<td>Mr. T. Boopalarajan</td>
<td>Apprentice</td>
</tr>
<tr>
<td>9</td>
<td>Mrs S.Saradha</td>
<td>Part time staff</td>
</tr>
<tr>
<td>10</td>
<td>Mrs R.Devi</td>
<td>Part time staff</td>
</tr>
</tbody>
</table>
# Sponsored Research

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Projects</th>
<th>Value in Rs Lakhs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018 - 19</td>
<td>01</td>
<td>12.10</td>
</tr>
<tr>
<td>2019 - 20</td>
<td>02</td>
<td>62.26</td>
</tr>
<tr>
<td>2020 - 21</td>
<td>05</td>
<td>54.75</td>
</tr>
<tr>
<td>2021 - 22</td>
<td>04</td>
<td>153.05</td>
</tr>
<tr>
<td>2022 - 23</td>
<td>01</td>
<td>188.27</td>
</tr>
</tbody>
</table>

## List of International collaborative projects

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>External Funding Support Organization</th>
<th>Title of Project</th>
<th>Amount of Grant and Duration</th>
<th>PI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DST Indo-Czech Project</td>
<td>Development of high strength and low young’s modulus, bioactive and antibacterial porous titanium structures for orthopaedic implants</td>
<td>INR 36.50 Lakhs &amp; Oct’ 20 – Oct’ 23</td>
<td>Dr. N. Ramesh Babu</td>
</tr>
<tr>
<td>2</td>
<td>DST Indo-Russia Project</td>
<td>Development of Nanostructured Titanium Implants with Bioactive and Antibacterial Composite Coatings for Dental and Maxillofacial Applications</td>
<td>INR 94.30 Lakhs &amp; July’19 – Sept’22</td>
<td>Dr. N. Ramesh Babu</td>
</tr>
</tbody>
</table>
NEW FACILITIES ADDED

- WIRE CUT EDM
- OPTICAL EMISSION SPECTROMETER
- PIN ON DISC – WEAR
- WELDING ROBOT
Project and consultancy work carried out for the Financial year 2021-22
Honorable Minister of State in the Ministry of Education, GoI
Dr. Subhas Sarkar eagerly watching the performance of Fureboat
NIT-T’s ‘fureboat’ earns kudos from Minister of State for Education

It is a cost-effective product to safeguard lives and valuables during times of floods: bamboo along with steel has been used as reinforcements to provide both strength and rigidity to the product.

A furniture-cum-boat, ‘Fureboat’ designed by a senior faculty as a cost-effective product to safeguard lives and valuables at times of floods, was appreciated by Minister of State for Education Subhas Sarkar on Monday at the National Institute of Technology - Tiruchi.

The effectiveness of the product for which a patent has been filed by the inventor S. Muthukumaran, Professor and Dean, Research and Consultancy, was demonstrated at the swimming pool in the campus. In flood situations, boats need to be brought to the affected areas from the fishing harbours. Hence, cost-effective multi-purpose device was developed to safeguard life and valuables during flood. Cor-boat and float-a-mush are examples of multi-purpose devices (furniture), Prof. Muthukumaran said. The patent for the Fureboat filed on April 15, 2021, is titled ‘Multi-purpose rescue furniture and method thereof. For the Fureboat, bamboo along with steel has been used as reinforcements/frames to provide both strength and rigidity.

A pair of cars have been fixed at the bottom of the furniture and can be ready used for rowing at times of flood. This type of furniture can be used in office industry, public places and houses, Prof. Muthukumaran explained to the Central Minister. He gave away the first Fureboat to the Government Middle School on the campus.

Speaking on the book “Mo- doubling: Dreams meet Delivery”, the Minister said the book depicted 20 years of political journey of the Prime Minister Narendra Modi three as Chief Minister of Gujarat and twice as Prime Minister.

Honorable Minister of State in the Ministry of Education, GoI - Dr. Subhas Sarkar presenting the first Fureboat to a School

Working to get certification from Shipping Corporation of India - Siemens funded Rs 3 lakhs for initiation
Patents, Books Published
Dr. S. Muthukumaran


• Patent (No: 201741040346 dated: 24.11.2017. CBR NO 34881) on “INVESTIGATIONS ON MECHANICAL AND DRY SLIDING WEAR BEHAVIOUR OF ALUMINIUM HYBRID COMPOSITES” – Application Published

• Patent (No: 201941004659 A dated: 15.02.2019.) on “WEAR BEHAVIOR OF B4C REINFORCED HYBRID ALUMINUM MATRIX COMPOSITES AT ELEVATED TEMPERATURE” – Application Published in OFFICIAL JOURNAL OF THE PATENT OFFICE, ISSUE NO. 07/2019 FRIDAY DATE: 15/02/2019
Dr. S.P. Kumaresh Babu


As a part of **IPR** - Books Published

As a part of IPR – Book chapters Published


Department Laboratory Facilities

Welding Robot

Optical Emission Spectrometer
Department Laboratory Facilities

SEM with EDS

X-ray Diffractometer
Department Laboratory Facilities

Spark plasma sintering Machine

Seebeck coefficient and electrical resistance system

Contd.,
Department Laboratory Facilities

High energy planetary Ball Mills

Contd.,
Micro Tensile / compression Instrument (Cold/ hot / Cryo atmosphere)
Department Laboratory Facilities

Hydraulic Press
Department Laboratory Facilities

Polymer and Composite Laboratory
Department Laboratory Facilities

Diffusion Bonding Instrument

Contd.,
Department Laboratory Facilities

Metallography / Microscopy

Contd.,
Department Laboratory Facilities

Mechanical Testing LAB

Contd.,
Department Laboratory Facilities

Advanced Materials Processing Lab

Contd.,
Process Metallurgy LAB – the “youngest!” And the “oldest”  

Contd.,
Department Laboratory Facilities

Melting Furnaces

Contd.,
Department Laboratory Facilities

Vacuum Induction Melting Furnace
laboratory trials to develop exotic species (materials)
Department Laboratory Facilities

Friction Stir Welding – metallurgists working to bring together different materials!
Department Laboratory Facilities

CMT & Micro Plasma Welding unit

Contd.,
Department Laboratory Facilities

Optical Profilometer

Scratch Tester

Contd.,
Department Laboratory Facilities

Cyclic Corrosion Chamber

Micro Hardness Tester

Contd.,
Department Laboratory Facilities

Thermal Analyzer

FTIR Spectroscope
Our students in every year secure prestigious summer internships in abroad

MITACS, Canada
DAAD, Germany
Charpak, France
NUS, Singapore
Placement and Higher Studies

Avg. Placement Index: 0.76

GATE achievement
D Laxman Rao – AIR 1 - 2021
Madhav – AIR 14 - 2019
The Top 10 scholars (in no particular order) of the WOM scholarship programme are mentioned below:

- Adrija Nag, NIT Jamshedpur
- Ananya Kant, BIT Mesra
- Anoushka Pal, IIT BHU
- Ativa Rath, VSSUT
- **Devi Janani Ramesh, NIT Trichy**
- Kirty Goyal, CET, Bhubaneswar
- Poorvi Agrawal, NIT Raipur
- Riya Mehta, NIT Jamshedpur
- Shrutiika, NIT Jamshedpur
- Yavnika Chauhan, IIT BHU
New building

• The foundation stone was laid on 25/09/2021 for new building for MME worth of approximately Rs. 30 crores
Elevation of Proposed new building
Students Publications – Newsletter (MMEA)
Professional Activities (MMEA)
Professional Activities (Material Advantage)
Students’ Achievements

SURYARAO KIMAYA (112118058)
MIT DMSE SM

Mr. K. Akshay (112116026)
Manager – Operations, Tata Steel
Material Advantage Student Chapter

CHARTER

For the establishment and conduct of a
Material Advantage Student Chapter at the
National Institute of Technology, Tiruchirappalli

It shall be the duty of the properly elected officers of this chapter
to conduct business of the chapter in accordance with the Constitution
and Rules of Government of the parent organizations.

Witness our hand and seal
February 6, 2020

Chhi Tatsuki
President
AIST

Ronald O’Mally
President
AIST

Zi-Kui Lu
President
ASM International

James Foley
President
TMS
Thank You