



VIT
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)



विज्ञान एवं
प्रौद्योगिकी मंत्रालय
MINISTRY OF
SCIENCE AND
TECHNOLOGY
सत्यमेव जयते

School of Mechanical Engineering (SMEC)
Synergistic Training program Utilizing the Scientific and Technological Infrastructure
STUTI-2022
4th – 11th July 2022
Materials Manufacturing Processes – Fundamentals, Testing and Characterization

 <p>VIT Vellore Institute of Technology</p> <p>SYNERGISTIC TRAINING PROGRAM UTILIZING THE SCIENTIFIC AND TECHNOLOGICAL INFRASTRUCTURE</p> <p>04th - 11th July, 2022</p> <p>"Materials Manufacturing Processes Fundamentals, Testing and Characterization"</p> <p>REGISTRATION FORM</p> <p>Name : _____ Title : _____ Affiliation : _____ Mailing Address : _____ Pin : _____ Mobile No : _____ Email ID : _____</p> <p>ELIGIBILITY</p> <ul style="list-style-type: none">Participant should be an Indian Citizen.Assistant/associate professors/Professors/Scientists/Post Doc. Fellows/ Ph.D. Fellow and /or B.Tech. students who are actively involved in the field of basic or allied sciences or engineering.Industry professionals who are actively involved in R&D. <p>REGISTRATION PROCEDURE</p> <ul style="list-style-type: none">Interested candidates have to fill the online form on or before 17-06-2022 (Link : https://forms.gle/IEMJ23Ak5upYkg316)Candidates will be selected based on eligibility and Availability of seats. The confirmation of selection will be communicated to the selected candidates on or before 23-06-2022 by email.Maximum Number of Participants Allowed : 30 <p>GENERAL INFORMATION</p> <ul style="list-style-type: none">Registration Kit, Course material and Certificate of participation will be provided to the participants.Local Hospitality (accommodation & Meal) will be provided. The train fare (as per actuals) by shortest route will be reimbursed to the selected outstation participants. Participants are encouraged to bring their samples if any, for hands on analysis during the program. <p>All correspondence should be addressed to</p> <p>Prof. Vasudevan R, School of Mechanical Engineering, VIT, Vellore - 632014. Mobile : +91 9500027238 Email : vasudevan.r@vit.ac.in</p>	<p>CHIEF PATRON</p> <p>Dr. G. Viswanathan Chancellor, VIT, Vellore.</p> <p>PATRONS</p> <p>Mr. Sankar Viswanathan Vice president, VIT, Vellore.</p> <p>Dr. Sekar Viswanathan Vice president, VIT, Vellore.</p> <p>Mr. G. V. Selvam Vice president, VIT, Vellore.</p> <p>Prof. Rambabu Kodali Vice chancellor, VIT, Vellore.</p> <p>Prof. S. Narayanan Pro-Vice chancellor, VIT, Vellore.</p> <p>CONVENOR</p> <p>Prof. Devendranath Ramkumar Dean-SMEC, VIT, Vellore.</p> <p>ADVISORY COMMITTEE</p> <p>Prof. Manoharan R HOD, Design & Automation, VIT, Vellore.</p> <p>Prof. Jeevanantham A K HOD, Manufacturing Engineering, VIT, Vellore.</p> <p>Prof. Nantha Gopal K HOD, Automotive Engineering, VIT, Vellore.</p> <p>Prof. Prakash R HOD, Thermal & Energy Engineering, VIT, Vellore.</p> <p>Prof. Padmavathy C HOD, Technology Management, VIT, Vellore.</p> <p>Prof. Rajendra G. Sonkawade, Shivaji University, Kolhapur</p> <p>ORGANIZING SECRETARIES</p> <p>Prof. Vasudevan R VIT, Vellore.</p> <p>Prof. Raja Annamalai A VIT, Vellore.</p> 	 <p>VIT Vellore Institute of Technology (Deemed to be University under section 3 of UGC Act, 1956)</p>  <p>SYNERGISTIC TRAINING PROGRAM UTILIZING THE SCIENTIFIC AND TECHNOLOGICAL INFRASTRUCTURE</p> <p>STUTI-2022</p> <p>04th - 11th July, 2022</p> <p>"Materials Manufacturing Processes - Fundamentals, Testing and Characterization"</p>  <p>Supported by Department of Science and Technology, Ministry of Science and Technology, Government of India, New Delhi.</p> <p>In collaboration with Shivaji University, Kolhapur, Maharashtra.</p>
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Schedule

<i>Day 1</i>	
09:30 to 10:15	Registration
10:30 to 11:30	Inauguration
11:30 to 13:30	Lecture from Resource Person I
13:30 to 14:30	Lunch Break
14:30 to 16:45	Lecture from Resource Person II
16:45 to 17:00	Tea Break
17:00 to 19:00	Hands on Training on Equipment's
19:00 Onwards	Dinner

<i>Day 2 to Day 5 :</i>	
10:15 to 11:15	Lecture from Resource Person III
11:15 to 11:30	Tea Break
11:30 to 12:45	Continue Lecture from Resource Person III
12:45 to 14:00	Lunch Break
14:00 to 16:15	Lecture from Resource Person IV
16:15 to 16:30	Tea Break
16:30 to 19:00	Hands on Training on Equipment's
19:00 Onwards	Dinner

<i>Day 6</i>	
09:00 to 11:15	Lecture from Resource Person XI
11:15 to 11:30	Tea Break
11:30 to 13:45	Lecture from Resource Person XII
13:45 to 14:45	Lunch Break
14:45 to 19:00	Excursion Tour with Lecture
19:00 Onwards	Dinner

Day 7	
10:15 to 11:15	Lecture from Resource Person XIII
11:15 to 11:30	Tea Break
11:30 to 12:45	Continue Lecture from Resource Person XIII
12:45 to 14:00	Lunch Break
14:00 to 16:15	Lecture from Resource Person XIV
16:15 to 16:30	Tea Break
16:30 to 18:00	Valedictory function

Resource Persons

Sl.No.	Name
1	Dr.A. Raja Annamalai
2	Dr.Sonkawade
3	Dr. Senthilnathan N
4	Dr. Jambeswar Sahu
5	Dr. Oyyaravelu
6	Dr. Ranjeet Kumar
7	Dr. Rijesh M
8	Dr. T. Sampath Kumar
9	Dr. K. Raja
10	Dr. Arivarasu M
11	Dr. Chinmaya Prasad Mohanty
12	Dr. Renold Elsen S
13	Dr. Sitaram Dash

Inaugural Programme Schedule

Venue: Rajaji Hall		Date: 4 July 2022
Welcome Address	:	Dr. Devendranath Ramkumar, Dean-SMEC
Lighting of lamp (“Kuthuvilakku”)		
About the Workshop	:	Dr. A.Raja Annamalai, Director- CIMR, Coordinator- STUTI 2022
Felicitations Address	:	Dr. Jayabarathi T, Registrar, VIT, Vellore
Introduction of Guest of Honour	:	Dr.M.Arivarasu, Associate Professor, CIMR
Address by Guest of Honour	:	Prof. R. G. Sonkawade, Coordinator - Sophisticated Analytical Instrument Facilities (SAIF), Department of Physics, Shivaji University, Kolhapur
Introduction of Chief Guest	:	Dr.Arun Tom Mathew, Associate Dean - SMEC
Inaugural Address	:	Dr.P.Ramesh Narayanan Group Director- Materials, VSSC, ISRO, Thiruvananthapuram
Vote of thanks	:	Dr. R.Vasudevan, Coordinator- STUTI 2022



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Materials Manufacturing Processes – Fundamentals, Testing and Characterization

PROGRAMME SCHEDULE

Day – 1: 4 July 2022

Time	Topic	Speaker Details	Venue
10.00 am – 11.00 am	Inaugural Function		Rajaji Hall, M.G.R. Block
11.00 am – 12 Noon	Keynote Talk -1 : “Materials Characterization” by Dr.P. Ramesh Narayanan, VSSC, ISRO, Thiruvananthapuram		Rajaji Hall, M.G.R. Block
12 Noon – 1.00 pm	Keynote Talk – 2 : “Lightweighting with Magnesium Alloys” by Dr. Srinivasan, National Institute for Interdisciplinary Science and Technology (NIIST), Trivandrum		Rajaji Hall, M.G.R. Block
1.00 pm - 2.00 pm	Lunch Break		
2.00 pm – 4.00 pm	Facilities Available at SAIF-CFC-DST Center, Shivaji University, Kolhapur	Prof. R. G. Sonkawade, Coordinator, SAIF, Shivaji University, Kolhapur	Rajaji Hall, M.G.R. Block
4.00 pm- 6.00 pm	Morphological and Structural Characterization using Sophisticated Instruments	Prof. R. G. Sonkawade, Coordinator, SAIF, Shivaji University, Kolhapur	Rajaji Hall, M.G.R. Block

Day – 2: 5 July 2022

8.30 am – 11.00 am	Emerging Trends in Powder Metallurgy	Dr. Senthilnathan N, SMEC, VIT, Vellore	Rajaji Hall, M.G.R. Block
11.00 am – 1.00 pm	Recent developments in metal forming technology	Dr. Jambeswar Sahu, SMEC, VIT, Vellore	Rajaji Hall, M.G.R. Block
Lunch Break			
2.00 pm- 3.30 pm	Demonstration on casting		G26, GDN Block
3.45 pm- 5.30 pm	Demonstration on wire-cut EDM		G14, GDN Block
5.30 pm – 6.15 pm	Demonstration on FDM and reverse engineering (Scanner)		GDN Block

Day – 3: 6 July 2022

8.30 am – 11.00 am	Modern trends in joining technology	Dr. Rijesh M, SMEC, VIT, Vellore	Rajaji Hall, M.G.R. Block
11. 00 am – 1.00 pm	Current revolution in cutting technology	Dr. T. Sampath Kumar, SMEC, VIT, Vellore	Rajaji Hall, M.G.R. Block
Lunch Break			
2.00 pm- 3.45 pm	Demonstration of SLM		ALM 201, ALM Block
4.00 pm – 6.15 pm	Demonstration on creep and impact testing		G14, GDN Block

Day – 4: 7 July 2022

8.30 am – 11.00 am	High-temperature material processing	Dr. Arivarasu M, CIMR, VIT, Vellore	Rajaji Hall, M.G.R. Block
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11.00 am – 1.00 pm	Importance of microstructural analysis	Dr. Yazar K U, CIMR, VIT, Vellore	Rajaji Hall, M.G.R. Block
Lunch Break			
2.00 pm – 4.00 pm	Demonstration on FE-SEM		G07, CDMM Block
4.00 pm – 6.00 pm	Demonstration on P-XRD		G06, CDMM Block
Day – 5: 8 July 2022			
8.30 am – 11.00 am	Introduction to additive manufacturing	Dr. Ranjeet Kumar, SMEC, VIT, Vellore	Rajaji Hall, M.G.R. Block
11.00 am – 1.00 pm	Advances in Metal Casting Technology	Dr. Chinmaya Prasad Mohanty, SMEC, VIT, Vellore	Rajaji Hall, M.G.R. Block
Lunch Break			
2.00 pm – 4.00 pm	Demonstration on Tensile, Compression and Flexural Test		G14, GDN Block
4.15 pm – 6.15 pm	Demonstration on surface properties Measurements		G14, GDN Block
Day – 6: 9 July 2022			
8.30 am – 11.00 am	High Temperature wear behavior of composite materials	Dr. Renold Elsen S, SMEC, VIT, Vellore	Rajaji Hall, M.G.R. Block
11.00 am – 1.00 pm	Non-Destructive Materials and Characterization	Dr. Devendiran S, SMEC, VIT, Vellore	Rajaji Hall, M.G.R. Block
Lunch Break			
2.00 pm – 3.30 pm	Demonstration on testing of wettability and residual stress		G14, GDN Block
3.45 pm – 6.15 pm	Demonstration on wear test		G14, GDN Block
Day – 7: 11 July 2022			
8.30 am – 11.00 am	Latest advancement in surface modifications	Dr. Sitaram Dash, SMEC, VIT, Vellore	Rajaji Hall, M.G.R. Block
11.00 am – 1.00 pm	Current trend in coating technology	Dr. Sitaram Dash, SMEC, VIT, Vellore	Rajaji Hall, M.G.R. Block
Lunch Break			
2.00 pm – 3.30 pm	Demonstration on 3D and 4D Bio-printing /single crystal XRD and Mass Spectroscopy		Ground floor, CDMM Block
3.45 pm – 5.00 pm	Demonstration on tribological testing		G14, GDN Block
5.15 pm – 6.00 pm	Valedictory Function		Rajaji Hall, M.G.R. Block



Press Release

भारत हाय-टेक उत्पादनाचे केंद्र बनण्याच्या मार्गावर

डॉ. पी. रमेश नारायणन यांचे प्रतिपादन : तामिळनाडू वेल्लोर येथे कार्यशाळा उद्घाटन

प्रतिनिधी
कोल्हापूर

भारतामध्ये २०३० पर्यंत जागतिक उत्पादन केंद्र बनण्याची क्षमता आहे. जागतिक अर्थव्यवस्थेत दरवर्षी ५०० अब्ज अमेरिकी डॉलरपेक्षा जास्त जोडू शकते. जागतिक दिग्गजांनी एकतर भारतात उत्पादन प्रकल्प स्थापन केले आहेत. तर काही स्थापन करण्याच्या प्रक्रियेत आहेत. भारत सरकार देशातील उत्पादन क्षेत्राच्या वाढीसाठी निरोगी वातावरणाला प्रोत्साहन देण्यासाठी पुढाकार घेत आहे. त्यामुळे मेक इन इंडिया इईव्हच्या मदतीने, भारत हाय-टेक उत्पादनाचे केंद्र बनण्याच्या मार्गावर आहे असे प्रतिपादन डीएसएससी, इस्त्रोचे साहित्य-गट संचालक डॉ. पी. रमेश नारायणन यांनी केले.

भारत सरकारचे विज्ञान व तंत्रज्ञान मंत्रालय (DST) प्रायोजित शिवाजी विद्यापीठ आणि तामिळनाडू येथील VIT वेल्लोरच्या ऑफ मॅरिटाइम इन्जिनीअरिंग (SMEC) यांच्या



तामिळनाडू वेल्लोर येथील कार्यशाळेच्या उद्घाटनप्रसंगी सीआयएमआरचे संचालक डॉ. ए. राजा अन्नामलाई, सीएमईसीचे सहयोगी अधिष्ठाता डॉ. अरुण टॉम मॅथ्यू, शिवाजी विद्यापीठातील सैफचे संचालक डॉ. आर. जी. सोनकवडे, इस्त्रोचे साहित्य गट संचालक डॉ. पी. रमेश नारायणन, माजी अधिष्ठाता डॉ. आर. वासुदेवन, डॉ. देवेंद्रनाथ रामकुमार.

संयुक्त विद्यमाने स्तुति (सिनरजिटिव्ह ट्रेनिंग प्रोग्रॅम अँड टेक्नॉलॉजिकल इन्फ्रास्ट्रक्चर) योजने अंतर्गत ७ दिवसीय कार्यशाळेचे आयोजन केले आहे. वेल्लोर येथील साहित्य गट संचालक डॉ. पी. रमेश नारायणन यांनी प्रमुख म्हणून ते बोलत होते.

डीएसएससी, इस्त्रोचे गट संचालक डॉ. पी. रमेश नारायणन यांनी साहित्याची वैशिष्ट्ये आणि विज्ञान मंत्रालयाचा वापर यावर मार्गदर्शन केले. शिवाजी विद्यापीठातील

भौतिकशास्त्र विभाग, सौफचे संचालक डॉ. आर. जी. सोनकवडे, यांनी स्तुति आणि भारत सरकारचे विज्ञान व तंत्रज्ञान मंत्रालय (DST) येथे उपलब्ध असलेल्या विविध योजनांविषयी माहिती दिली. त्याचबरोबर 'अत्याधुनिक उपकरणे वापरून संघटनात्मक वैशिष्ट्यीकरण' या विषयावर मार्गदर्शन केले. शिवाजी विद्यापीठातील SAIF-DST-CFC केंद्रात उपलब्ध असलेल्या अत्याधुनिक उपकरणांविषयी सविस्तर माहिती दिली. तत्पूर्वी, डॉ. देवेंद्रनाथ रामकुमार, डीन SMEC यांनी सर्व सहभागी आणि पाहुण्यांचे स्वागत केले. त्यांनी भारतातील उत्पादन क्षेत्र आणि भारत सरकारच्या विविध योजनांचे महत्त्व सांगितले. सेंटर फॉर इनोव्हेटिव्ह मॅन्युफॅक्चरिंग अँड रिसर्च संचालक, कार्यशाळेचे समन्वयक डॉ. ए. राजा अन्नामलाई यांनी कार्यशाळा कोणत्या विषयावर आहे, याबद्दल माहिती दिली. डॉ. आर. वासुदेवन यांनी भारत मंत्रालय

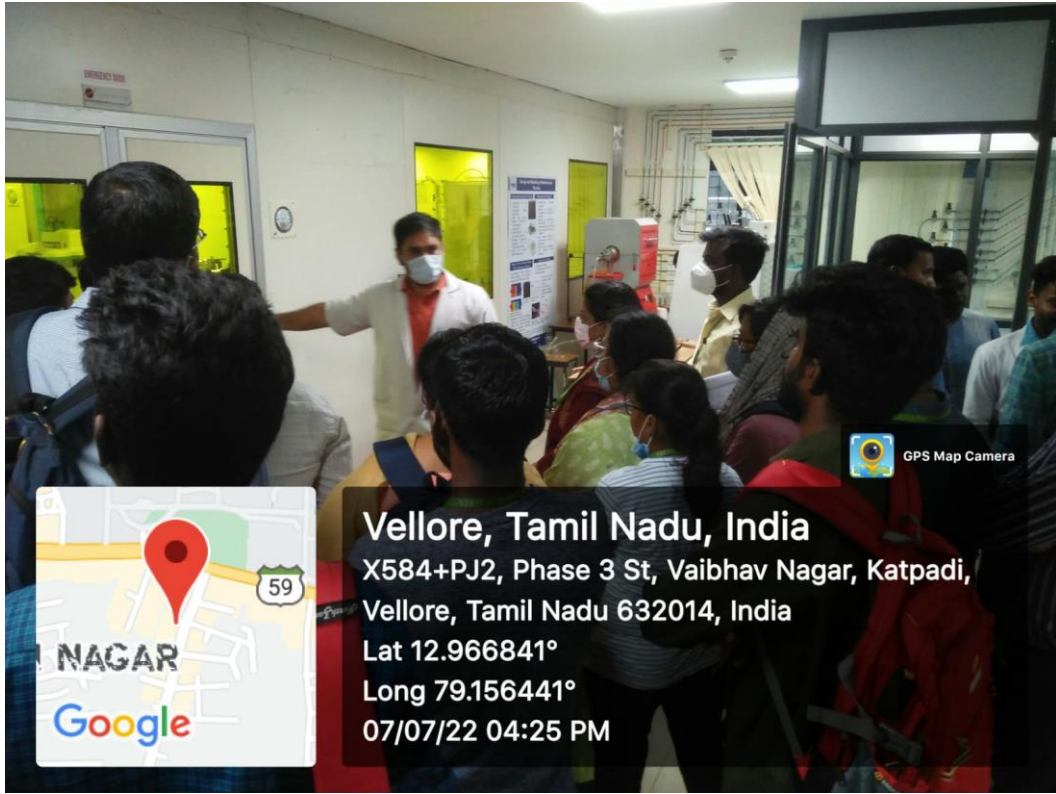
Parin Bharat 6 July 2022

Technical Sessions



Vellore, Tamil Nadu, India
G D Naidu Block, VIT University, Vellore, Tamil Nadu 632014, India
Lat 12.970123°
Long 79.15509°
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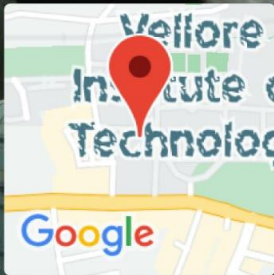
Vellore, Tamil Nadu, India

VIT University Campus, X593+QVC, Vellore, Tamil Nadu
632014, India

Lat 12.969361°

Long 79.154721°

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Vellore, Tamil Nadu, India

Dr. A.L. Mudaliyar Block, VIT University, Vellore,
Tamil Nadu 632014, India

Lat 12.969131°

Long 79.155012°

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