Executive Committee of ICMSMT 2020

Conference Chairs
Dr. Senthilkumar Sundaram, Diligentec Solutions, Coimbatore, India
Dr. Suguna N, Joint Director, Akshaya College of Engineering Technology, India

General Chairs
Dr. Baharudin Bin Ismail, Universiti Malaysia Perti, Malaysia
Dr. Jaya J, Principal, Akshaya College of Engineering and Technology, India

Organizing Chairs
Dr. Palamikumar S, Diligentec Solutions, Coimbatore, India
Dr. Kathiravan N, Dean, Akshaya College of Engineering and Technology, India

Members
Dr. Sivakumar R, Akshaya College of Engineering and Technology, India
Dr. Sendhil Kumar S, Akshaya College of Engineering and Technology, India
Dr. Anithasree A, Akshaya College of Engineering and Technology, India
Dr. Rajkumar N, Akshaya College of Engineering and Technology, India
Dr. Viji C, Akshaya College of Engineering and Technology, India

Guest Editor
Dr. Ajmal Anvari-Moghadam, Aalborg University, Denmark

Information Contact
Dr. Kapilan S, Akshaya College of Engineering and Technology, India

Technical Program Committee Chairs
Dr. Joseph Xavier R, Advisor, Akshaya College of Engineering and Technology, India
Dr. Sabareesanaan K J, Mechanical and Industrial Section, Nizwa College of Technology, Oman
Dr. Moorthi, S R Engineering College, Warangal, India
Dr. Rajamani R, PSG College of Technology, Coimbatore, India

Technical Program Committee
Dr. Jaroslaw Drelich, Michigan Technological University, USA
Dr. Chong Wen Tong, University of Malaya, Malaysia
Dr. Mohamed Arezki Mellai, M'Hamed Bougara University, Algeria
Dr. Khairul Raofiz Ahmad, University Malaysia Perlis, Malaysia
Dr. Mahanthi S D, Michigan State University, USA
Dr. Mohammed Henini, University of Nottingham, UK
Dr. Sharifah Shaznah Syed Bakar, University Malaysia Perlis, Malaysia
Dr. Alexandru Bogdan Andreescu, Transilvania University of Brasov, Romania
Dr. Norinsan Kamal Othman, University Science Malaysia, Malaysia
Dr. Mitsuru Itoh, Tokyo Institute of Technology, Japan
Dr. Sanjeev Kumar, Aalborg University, Denmark
Dr. Ramani Kannan, University Technology Petronas, Malaysia
Dr. Satyabrata Das, Indian Institute of Technology, Kanpur
Dr. Singh S P, Indian Institute of Technology, Delhi
Dr. Rajiv D. Dusane, Indian Institute of Technology, Bombay
Dr. Kamal K Kar, Indian Institute of Technology, Kanpur
Dr. Ashish Kumar Mishra, Indian Institute of Technology, Varanasi
Dr. Anand K, Indian Institute of Technology Madras, India
Dr. Sushil Mishra, Indian Institute of Technology, Bombay
Dr. Aij Panigrahi, CSIR-Institute of Minerals and Materials Tech, Bhubaneswar
Dr. Somnath Bhowmie, Indian Institute of Technology, Kanpur
Dr. Patil P, Indian Institute of Technology, Varanasi
Dr. Amrita Bhattacharya, Indian Institute of Technology, Bombay
Dr. Akhilesh Kumar Singh, Indian Institute of Technology, Varanasi

Dr. Krishnakant, Indian Institute of Technology, Delhi
Dr. Alankar Alankar, Indian Institute of Technology, Bombay
Dr. Vanitha C, National Institute of Technology, Warangal
Dr. Tanmoy Maiti, Indian Institute of Technology, Kanpur
Dr. Jitendra Kumar, Indian Institute of Technology, Varanasi
Dr. R. N. Ravikumar, Indian Institute of Technology, Madras
Dr. Bikash Kumar, CSIR-CSIR, Bhubaneswar
Dr. Ramkumar J, Indian Institute of Technology, Kanpur
Dr. Jyoti Prasad Borah, National Institute of Technology, Nagaland
Dr. Chandana Rath, Indian Institute of Technology, Varanasi
Dr. Mani V N, C-MET, DIETY, Government of India, India
Dr. Bimal Prasad Singh, CSIR-CSIR, Bhubaneswar
Dr. Vivek Verma, Indian Institute of Technology, Kanpur
Dr. Parag Tanday, Indian Institute of Technology, Bombay
Dr. Honey John, Cochin University of Science and Technology, Cochin
Dr. Manas K Dalai, CSIR-CSIR, Bhubaneswar
Dr. Nagaraja S, Akshaya College of Engineering Technology, India
Dr. Mathan Kumar N, Akshaya College of Engineering and Technology, India
Dr. Selvaraju M, Akshaya College of Engineering and Technology, India
Dr. Baskaran S R, Akshaya College of Engineering and Technology, India
Dr. Balamurugan, Amrita School of Engineering, Coimbatore, India
Dr. Josephine R L, National Institute of Technology Trichy (NITT), India
Dr. Kulkarni S M, National Institute of Technology (NITK), Surathkal, India
Dr. Gururaj Punekar, National Institute of Technology (NITK), Surathkal, India
| MS 3050 | A review on concrete filled tubular sections using self compacting concrete |
| MS 3052 | Estimation of the soil loss in micro watersheds using morphometric analysis and GIS techniques |
| MS 3090 | Machine vision based interferometry for measurement of flatness error in micro and nano manufacturing |
| MS 3099 | Investigating mechanical properties of sustainable concrete admixing wollastonite micro fiber and granite block cutting waste |
| MS 4007 | Blockchain technology in food industry ecosystem |
| MS 4042 | A feasibility study of plastic as an alternative to air package in performance vehicle |
| MS 4047 | Inverting the organic solar cell |
| MS 4049 | Development of Functionally graded concrete using rubber fiber |
| MS 4098 | A review on durability properties of alkali activated composites |
| MS 5011 | Irradiation studies on nano-scale single crystal copper by molecular dynamics simulation |
| MS 5022 | Electric discharge machining of conducting ceramics - A review |
| MS 5027 | Analysis of gate engineered asymmetric junction less double gate MOSFET for varying operating conditions |
| MS 5046 | Effect of pH on the optical and structural properties of SnS prepared by chemical bath deposition method  
Smiya John, V Geetha and Melda Francis | 1335 |
| MS 5059 | A study on emerging contaminant amiodarone removal in water - experimental investigations and modeling  
P Chinnaiyan, S G Thampi, E Lalith Prakash, K Abinaya and P Varshini | 1339 |
| MS 7017 | Functionalization of Graphene with O and S atoms for tunable fluorescence – Optimization of process and parameters  
S Sudhaparimala and R Usha | 1344 |
| MS 7079 | Study on SAP with different absorption capacities and its effects on Self Curing HPC  
Poornima V, Venkatasubramani R, Sreevidya V, Vaishnava Vignesh and K Adithan | 1354 |
| MS 7092 | Flow modeling and simulation study of vacuum assisted resin transfer molding (VARTM) process: A review  
M Shah and V Chaudhary | 1363 |
| MS 7094 | Crystal growth, surface morphology, mechanical and thermal properties of UV- nonlinear optical crystal: Mercury cadmium chloride thiocyanate (MCCTC) single crystal  
V. Ramesh, B. Gunasekaran, P. Suresh, E. Sundaravadivel K. Showritlu and K. Rajarajan | 1378 |
| MS 8005 | Mechatronic approach in hydraulic braking system  
Rajesh Boorla, Mohammed Moizuddin, Gankidi Gangadhar Reddy and Syed Faisal Nouman | 1385 |
| MS 8014 | Synthesis & characterization of doped nickel ferrite filled natural rubber nano composites  
| MS 8048 | Study on effect of aeration time on methylene blue removal using titanium dioxide  
A Malathy, N Selvapalam, S Vanitha and C Sivapragasam | 1395 |
| MS 9010 | Image encryption using dynamic DNA encoding and pixel scrambling using composite chaotic maps  
Aditya K, Ashish K Mohanty, G Aravind Ragav, V Thanhkaiselvan and Amirthaarajan R | 1400 |
| MS 9016 | Analysis of surface water quality for irrigation in Padmanabhapuram fort (Kanyakumari District, Tamil Nadu) India  
B K Ramesh, M Velayatham Pillai, S Vanitha and J Diagu | 1410 |
| MS 9026 | Assessment of physical enablers of retail store environment  
*Jithin Jayakumar and M.Suresh* | 1417 |
| MS 9028 | Agility Assessment in retail store environment  
*Sandeep Ramesh Kumar V and M.Suresh* | 1426 |
| MS 9038 | Factors influencing on behaviour based safety in SMEs : A TISM approach  
*R. R. Ghautham and M.Suresh* | 1435 |
| MS 9043 | Agility of sales force in management responsibility orientation of retail stores: A TISM approach  
*G. Rahul and M.Suresh* | 1444 |
| MS 9046 | Agile Characteristics of frontline retail executives: A TISM approach  
*B.Sreelekshmi and M.Suresh* | 1452 |
| MS 9048 | Factors influencing brand sacralisation: A TISM approach  
*R.Subadhra and M.Suresh* | 1460 |
| MS 9050 | Marketing agility of strategic orientation in garment industries: A TISM approach  
*S.Supreethi and M.Suresh* | 1470 |
| MS 9066 | Static eccentricity fault analysis in inverter fed induction motor using finite element method  
*B Hema Priya, R Karthick, B Lokprakash, S Vasanth and N Praveen Kumar* | 1480 |
| MS 9075 | Entropy optimization of Williamson nanomaterial in presence of Cattaneo-Christov heat flux  
*K. Loganathan, K. Mohana, M. Mohanraj, S. Rajan and Diego J. Borrero Restrepo* | 1490 |
| MS 9076 | Heterogeneous-homogeneous effects on Oldroyd-B fluid flow: An application to modified heat flux theory  
*K. Loganathan, K. Mohana, R. Nirmalkumar, K.Manimekalai and Hugo Nunez Lobo* | 1500 |
| MS 9077 | Inquiry of inclined magnetic field effects on Walter –B nano fluid flow with heat generation / absorption  
*K. Loganathan, N. Nithyadevi, P. Boopathi, K. Mohana and Tiana Alexandra Rosania Althahona* | 1507 |
| MS 3062 | Matrix Coding Technique on Sun flower Graphs with Edge Product Cordial Labeling  
*G. Prasad and G. Uma Maheswari* | 1514 |
MS 3066  A Review on Concrete Filled Tubular Sections Using Self Compacting Concrete Under Eccentric Loading  
Rambha Thakur and Nanak Pamnani ................................................................. 1524

MS 3084  Conversion of Waste Heat into Electric Energy by High-Efficiency Thermoelectric Materials  
P. Poddar .................................................................................................................. 1529

MS 4063  An Experimental Investigation on Flexural Strength of Ferrocement Slab Made of Slag Sand Partially Replaced With Iron Ore Tailings  
James Devasia and Raghumandan Kumar R .................................................. 1534

MS 5004  Role of Anharmonicity in Specific Heat of Metals and Insulators at Low Temperatures  
Priti Kumari, Kumar Saurabh, P. Poddar and V.K. Verma .................. 1540

MS 5053  Comparison of Multiple Regression and Radial Basis Artificial Neural Network Models in Turning of Mild Steel Components  
A H Gadagi, C V Adake, S I Sangolli, and Shashidhar Halligerimath ........ 1549

MS 5079  On the Bonding and Electrochemical performance of Sputter Deposited WO₃ Thin Films  
K Naveen Kumar, Habibuddin Shaik, Sathish, V Madhavi and Sheik Abdul Sattar .......................................................... 1556

MS 6040  Energy efficiency sink based data collection protocol in WSN  
T.Lalitha, Nandhini.K and Shebaa Fairose ..................................................... 1564

MS 6096  Structural characterization and Rietveld refinement of CeO₂/CoFe₂O₄ nanocomposites prepared via coprecipitation method  
Indu Vashistha and Sunil Rohilla ................................................................. 1573

MS 6098  Rietveld refinement and structural characterization of TiO₂/CoFe₂O₄ nanocomposites  
Preeti and Sunil Rohilla ...................................................................................... 1584

MS 7040  Prediction of the Corn Grains Yield through Artificial Intelligence  
Jesús Silva, Narledys Nuñez-Bravo, Freddy Marín – González, Hugo Hernández Palma, Carlos Vargas Mercado and Noel Varela .............. 1596

MS 7042  Method for the Recovery of Images in Databases of Rice Grains from Visual Content  
Raquel Vásquez, Alejandra Leal Guzmán, José Antonio Rodríguez, Sirel Colón and Franck Audemard .............................................................. 1602

MS 7047  Model Genetic Rules Based Systems for Evaluation of Projects  
Jesús Silva, Liliana Patricia Lozano Ayarza, Julio Cesar MojicaHerazo, Omar Bonerge Pineda Lezama, Hugo Hernández Palma and Carlos Vargas Mercado 1609
| MS 7053 | Energy potential of vinasse derived from rum manufacturing  
  Carmen Luisa Vásquez Stanescu, Kevin Carrillo, Betzabeth Espinoza, Aniello Rizzo, Carla Fajardo and Rodrigo Ramírez-Pisco | 1615 |
| MS 7055 | Deep Learning Techniques for Analyzing Skin Cancer Image Data  
  Jesús Silva, Narledys Nuñez-Bravo, Freddy Marín – González, Hugo Hernández Palma, Carlos Vargas Mercado and Noel Varela | 1623 |
| MS 7064 | Study of Relative Metallic Character of Noble Metals Cu, Ag and Au at Normal Temperatures  
  Ramesh Kumar, Kumar Saurav, P. Poddar and V.K. Verma | 1631 |
| MS 7071 | Self-charging Peripherals with inbuilt Power Harvesting System  
  Mohamed Azman, Sahil Babu and Harish Reddy Thalla | 1635 |
| MS 7076 | Effect of microbial solution on compressive strength, water absorption and sorptivity of cement mortar incorporated with metakaolin  
  V Poornima, R Venkatasubramani, V Sreevidya, C Pavan and Anjala Nourin | 1643 |
| MS 8028 | Developing an Efficient Waste Management System: (An Approach by Using Some Methods of Mathematical Modelling)  
  K. Reji Kumar and E. N. Satheesh | 1654 |
| MS 8088 | Peptide Dendrimer Stabilized Gold Nanoparticles as Sensors  
  Niranjana Rajeev, Devika V, Aiswarya Lakshmi S, Sreelekshmi P J, Greeshma Babu, and Sandhya Sadanandan | 1661 |
| MS 9053 | Modelling the factors of workforce agility in retail stores: A TISM approach  
  V Vishnu Mon and M Suresh | 1667 |
| MS 9063 | Development of composite using recycled PET reinforced with fiberglass powder, sawdust and gypsum  
  Ananya Mathu, Syed Arham Asif, Chandra K, Suneel Motru, Devji Patel and Rayyan Syed | 1677 |
| MS 9078 | Entropy generation in 3rd-grade fluid flow over a riga plate with cross diffusion, nonlinear thermal radiation and Newtonian heating impacts  
  K. Loganathan, R. Nirmalkumar, M. Mohanraj, K. Mohana and Noel Varela | 1683 |
| MS 9079 | Bio convective flow of Maxwell nanofluid with swimming microorganisms  
  S. Anuradha, K. Mohana, K. Loganathan, K. Manimekalai, M. Balamurugan and Amelec Vitoria | 1693 |
ICMSMT

The scope of the International Conference on Materials Science and Manufacturing Technology (ICMSMT) is to provide a forum for researchers, scientists, academicians, scholars and practitioners around the world to present papers on recent developments in the broad fields of Materials Sciences and Manufacturing Technology. It also provides a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of Materials Science, Engineering and Manufacturing. Participants will have the opportunity to exchange their research findings and discuss theoretical and methodological perspectives in materials science and manufacturing technology. ICMSMT is an annual event and is conducted in the second week of April every year.

Call for Papers

ICMSMT invites full length original research contributions from science, engineering professionals from industries, R&D organisations, academic institutions, government departments and research scholars from across the world. Full length original research contributions and review articles not exceeding twelve pages as per the IOP single column format shall be submitted. Extra page charge is applicable for the manuscripts with more than twelve pages. The manuscript template shall be found in the downloads section. The manuscript should contain original research ideas, developmental ideas, analysis, findings, results, etc. The manuscript should not have been published in any journals/magazines or conference proceedings and not under review in any of them. Further the manuscript should contain the name of the corresponding author with e-mail id and affiliation of all authors. Soft copy of the full length manuscripts (in .doc and .pdf) shall be submitted to ICMSMT office as per the submission guidelines.

Topics

Research manuscripts and proposals are invited in the following topics (but not limited to)

Advanced materials
Biomaterials
Composite materials
Polymer science
Renewable materials
Functional materials
Nano materials
Building materials
Chemical materials
3D materials
Cryogenic materials
Energy storage and conversion materials
Smart/intelligent materials/intelligent systems
Optical/Electronic/Magnetic materials

Aerodynamics
Manufacturing systems and simulation
Machine design & Machinery dynamics
Nanotechnology
Mechanical dynamics and vibration
Mechanical strength & Design
Casting technology and equipment
Welding technology and equipment
Plastic processing technology
Cellular manufacturing
Advanced manufacturing processes
Laser processing & Automation
Industrial automation and process control
Intelligent controllers

Automation, control and information technology
Magnetic materials and smart materials for specific applications
MEMS and structural control
Active materials in MEMS applications
Materials property and characterisation
Thin film technology
Virtual instrumentation in automation
Machine vision system
Industrial robots and automation
Controllers and distributed control system
Embedded system
Sensors for automation
Vibration engineering

Peer review policy

Each submitted manuscript will receive a unique paper id. The manuscripts will be initially screened to check for the conference scope and originality. All the submitted manuscripts will be sent for technical peer review process and the corresponding author will be notified the outcome of the review process. ICMSMT adopts double blind review process. If reviewers recommended for further improvements in the manuscript, the manuscript will be sent back to the corresponding author and the revised version of the manuscript shall be submitted within fifteen days on the date of notification. The final decision on the manuscript will be announced after the third round of evaluation by the technical program committee.

Publications

The registered and presented papers of the ICMSMT will be published into the book of conference proceedings and the hard copy of the book of proceedings will be given to the participants during the conference. All the accepted and registered papers of ICMSMT will be published in the IOP: Materials Science and Engineering (a conference proceedings journal) which is indexed in CPCI – Web of Science (Thomson Reuters), SCOPUS, Inspec, International Nuclear Information System (INIS), NASA – ADS, Chemical Abstracts, Polymer Library, etc.

Academic Partner
Akshaya College of Engineering Technology, Coimbatore, Tamil Nadu, India.

Industry Partner
Diligentec Solutions, Coimbatore, Tamil Nadu, India.
Industry Partner

Diligentec Solutions, Coimbatore, Tamil Nadu, India is a multi-disciplinary consulting, research, training and data management company in the field of Engineering & Technology. The team members of Diligentec Solutions are specialized in providing technical assistance in the fields of Science, Engineering and Technology. The research team at Diligentec Solutions is responsible for breakthrough innovations in the most vibrant engineering domains. As a group of active engineers Diligentec have been involved in numerous design challenges in our research efforts so far. People at Diligentec Solutions, largely believe that Engineering & Technology are reinventing our world in every possible facet. And it becomes imperative that as passionate Engineers, Diligentec jump into the jargon to solve real world problems and take the human race forward. Diligentec provides full spectrum of conference organization and management solutions.

Official website: www.diligentec.com

Academic Partner

Akshaya College of Engineering and Technology was established in the year 2009 by Akshaya Charitable Trust with a Mission for providing World class Education for future Engineers with an aim to impart quality technical education with ethical as well as societal values. The Trust was formed by the professionals with more than 25 years of industrial experience. Akshaya College of Engineering and Technology is a prestigious institution acclaimed for its academic excellence, research initiatives, creative work, world class pedagogy, all around technical training, ability for honing leadership skills, well qualified and experienced faculty. It is a serene green campus with full of grown up trees and lush green lawns providing a beautiful environment.

Official website: www.acetcbe.edu.in

Media Partner

Witan / Witenagemot (Old English pronunciation: [witena je’mot] translated in current English as the “meeting of wise men”), was a political institution in Anglo-Saxon England which operated before the 7th century until the 11th century. Witan would advise the king on all areas related to his kingdom – The witenagemot was known to be the advisory council. Witan World is a revolutionary technology platform focused on exchange of knowledge & meaningful communication. At Witan World, people believe that all human beings are Kings & Queens of their own Kingdom, Witan World as your trusted councilman are committed for your Success. The goal of Witan World is to empower the world to have meaningful conversations about future.

Official website: www.witanworld.com

Publishing Partner

IOP Science is an online service for journal content published by IOP Publishing, UK. IOP Science embraces innovative technologies to make it easier for researchers to access scientific, technical and medical content. IOP Science has been designed to make it easy for researchers to discover relevant content and manage their research information.

Indexing & Abstracting
Conference Proceedings Citation Index - Science (CPCI-S) - (Thomson Reuters, Web of Science), Scopus, Compendex, Inspec, INIS (International Nuclear Information System), Chemical Abstracts, NASAAstrophysics Data System, Polymer Library

JOURNAL HISTORY
2009-present
IOP Conference Series: Materials Science and Engineering
doi:10.1088/issn.1757-899X
Online ISSN: 1757-899X
Print ISSN: 1757-8981

Official website: www.iopscience.iop.org

To conduct a Premier International Conference with the complete spectrum of conference management solutions at your institute, please contact

DILIGENTEC SOLUTIONS
Coimbatore | Tamil Nadu | India

(+91) 78680 02762
www.diligentec.com
diligentecolutions@gmail.com