First Virtual International Conference on Advances in Renewable and Sustainable Energy Systems (ICARSES 2020)
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PREFACE

Renewable energy sources are hygienic sources of energy that have a much lesser negative environmental impact than conventional fossils energy technologies. The most significant feature of renewable energy is its plentiful supply and is infinite in comparison to energy from the depleting fossil fuels. Hence an awareness about renewable energy and energy conservation has to be created globally and use of renewable, environmentally friendly and energy efficient technologies have to be promoted. Collaborative efforts for promoting research between Institutions and Industry on new energy efficient products and technologies at national and international level will help in achieving sustained energy transition. As an initiative in creating awareness on these challenges, the Department of Mechanical Engineering, SRMIST is conducting the first virtual International Conference on Advances in Renewable and Sustainable Energy Systems (ICARSES 2020) during 3rd to 5th December 2020.

ICARSES 2020 focuses on a range of issues related to various renewable and sustainable energy like Solar, Wind, Biogas, Geothermal, Biomass etc. The purpose of the conference is to bring together the multi-disciplinary community of engineers, scientists, and academics to discuss recent trends and future developments in Renewable Energy. The conference features invited and contributed talks organized in different sessions. The invited speakers are globally recognized experts in the respective fields' viz., Prof. Marc Rosen, University of Ontario, Canada, Prof. R.Z. Wang, Prof. Bidyut Baran Saha, Kyshu University, Japan, Prof. S C Kaushik, IIT Delhi, Prof. Sivasankaran Harish, University of Tokyo, Japan, Prof. R Velraj, Anna University, Chennai, India, Prof. S. Murugan, NIT, Rourkela, India, Dr. G. Kumaresan, IES, Anna University, Chennai, India, Dr. Zafar Said, University of Sharjah, UAE, Prof. K.V. Sharma, JNTU, Hyderbad, India, Prof. S. K. Tyagi, IIT Delhi, New Delhi, India, Dr. B. Chitti Babu, IITDM, Kanchipuram, Chennai, India, Dr. Ravita Lamba, MNIT Jaipur, India and Dr. Alperen Günay, University of Tokyo, Japan.

More than 160 technical papers will be presented in the conference and the presented papers will be submitted as full manuscripts for possible publication in the journals like Journal of Power and Energy (ISSN: 0957-6509), IOP Conference Series: Material Science and Engineering (ISSN: 1757-8981) and International Journal of Renewable Energy Research (ISSN: 1309-0127).

The organizers are grateful to SRMIST for the kind financial assistance. The Department of Mechanical is thankful to Dr. T. R. Paarivendhar, Chancellor, Mr. Ravi Pachamoothoo, Pro-chancellor (Admin), Dr. P. Sathyanarayanan, Pro-chancellor (Academics), and Dr. R. Shivakumar, Vice President, SRMIST or their encouragement and full support for the success of the conference. The organizing committee thanks the authorities, the Vice Chancellor, Pro-Vice Chancellor (E&T), Dean (CET), Dean (Research) and Chairperson (SME) SRMIST for their valuable, encouraging and motivating messages for the International conference. The committee also thanks President, Solar Energy Society of India and President, ISHRAE Chennai Chapter for the inspiring messages for the conference.

Dr. M Cheralathan
CONVENER
ABOUT SRMIST

SRMIST is one of the top ranking Universities and most premier engineering destinations in India, which is established in 1985 by the Founder Chancellor, Dr. T.R. Paarivendhar, SRMIST and now it is functioning in four campuses located at Kattankulathur, Vadapalani and Ramapuram in Tamilnadu and a fourth campus at Modi Nagar, Ghaziabad with over 38,000 students and 2,600 faculty members, offering wide range of undergraduate, post-graduate and doctoral programs in Engineering, Management, Medicine & Health Sciences, Law and Science & Humanities. SRMIST has been engaged in nurturing minds through a rich heritage of academic excellence. Essentially a hub of bustling student activities, the green and beautiful campus has been a second home to thousands of students in their journey to challenge the times. The Institution has moved up through international alliances and collaborative initiatives to achieve global excellence. SRMIST International Advisory Board (IAB) is actively involved in building a stronger international dimension in research and teaching methodology, which creates avenues for research and successful careers. The SRMIST also collaborates with foreign Universities like MIT, Carnegie Mellon University (CMU), and Pittsburg University etc. Over 150 students sponsored to 35 foreign Universities like MIT, Carnegie Mellon, UC Davis, Warwick and Western Australia. Now the Institute enjoys an unsurpassed reputation in academia and corporate circles being the preferred manpower source for vision to be recognized as a world-class learning institution. SRMIST has been accredited by NAAC with the Highest 'A++' Grade in the year 2018, valid for the next 5 years. It is placed in A category by MHRD. SRM is Category I status institute as per UGC accreditation.

ABOUT THE DEPARTMENT

The Department of Mechanical Engineering is one of the pioneering departments of SRMIST. The department is functionally divided into three broad areas of specialization: (i) Design (ii) Manufacturing and (iii) Thermal. The B.Tech - Mechanical Engineering program at Kattankulathur campus is accredited by Accreditation Board for Engineering and Technology (ABET), USA. The department also offers ranges of postgraduate programs including M. Tech in CAD, CIM, Robotics, Solar Energy and Doctoral programs in various specializations. The present faculty strength is 120, in which 50 faculty members are PhD Holder. About 1000 plus research papers and 900 plus conference papers have been published in national and international levels. More than 35 patents have been filed in national and international levels. The following salient workshops and conferences conducted by the Department of Mechanical Engineering were International Conference on Advances in Mechanical Engineering 2006, Short Course on Mechanics of Composite Materials and Structures: 2015, Workshop on Development, Manufacturing and Analysis of Advanced Composites, 2015 and short course on FEM, 2015, National Conference on Advances in Mechanical Engineering (NCAME 2016), Brain Wave Robotics 2017, International Conference on Advances in Mechanical Engineering (ICAME 2018) and 2nd international Conference on Advances in Mechanical Engineering (ICAME 2020).
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