

Prof. P. Muthukumar

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Biosketch/Research Interest

Prof. P. Muthukumar received PhD degree in Mechanical Engineering from IIT Madras during 2005. He joined at IIT Guwahati as Assistant Professor in January 2006 and became Professor in January 2015. He joined at IIT Tirupati as Professor in Mechanical Engineering on 25th May 2022. He received DAAD research fellowships during September – December 2000, June-July 2008, and June - July 2010. He is the recipient of IEI Young Engineer Award - 2010 in Mechanical Engineering from Institute of Engineers (India). He received **Bhaskara Advanced Solar Energy Fellowship (BASE Fellowship)** from Indo - U.S. Science and Technology Forum (USIEF), Jan 2014 and also received Er. M.P. Baya National Award 2015 from Instituted by the Institution of Engineers (India), Udaipur. He is also the Fellow of Institute of Engineers (India). He is one of the Commission Member to represent India in the International Institute of Refrigeration (IIR). He also received **Fulbright-Nehru Academic and Professional Excellence Fellowship from (USIEF) in 2018**. He has served as the President, Indian Society of Heating, Refrigerating and Air Conditioning Engineers (ISHRAE), Guwahati sub-chapter. He also received “Mechanical Engineering Design Award 2017, from **National Design & Research Forum (NDRF) of “The Institution of Engineers (India)”**, on 21st Dec 2017. During 2019, he was honoured as Eminent Engineer -2019 from “The Institution of Engineers (India)”, Assam State Centre. In 2020, he appeared in the **World’s Top 2 % Scientist published by Stanford University**, USA report. He has won **BIRAC-Innovation Challenge Award-SoCH 2020-21 for stage – 1 and stage – 2**. He was honoured with an award of **Outstanding Engineering service to country** by the Institution of Engineers (India), Rajasthan state centre on 15th September 2021. To recognise his outstanding contributions in the field of Thermal Science and Energy Technology as well as his contribution in the growth of the country’s engineering profession, recently, he has been awarded for the prestigious **“Abdul Kalam Technology Innovation National Fellowship 2021”**. **He served as visiting Professor in many Universities from the USA and Germany and also having research collaborations with over 25 International Universities.**

He has been published around 350 research articles in various International Journals and conference proceedings, edited four books and written 16 book chapters. He is having 12 national patents for his credit. He has served as guest editor in 3 elsevier Journal special issues. He has supervised 24 PhD, 65 M.Tech and 5 MS student’s theses. He has successfully completed 10 sponsored research projects worth of 650 lakhs and five consultancy projects worth of 75 lakhs. Currently he is handling 7 research projects worth of 1200 lakhs. He is the reviewer of more than 75 International Journals in the area of hydrogen energy, energy storage, refrigeration, heat transfer, etc. and also reviewed several research proposals from DST, MNRE, Qatar Research Board, etc. He has been serving as expert member in several ministries including DST, MHRD, Ministry Oil and Natural Gas, Ministry of External Affair, etc for research project funding and monitoring. He is also expert / steering committee member in BIS, AICTE, NAAC and many other professor organizations. His area of research includes sorption heating and cooling systems, hydrogen energy storage, metal hydride based thermal machines, coupled heat and mass transfer in porous medium, porous medium combustion, etc.