**2nd IEEE International Conference on Power, Instrumentation, Control and Computing (PICC2018)**

The second international conference on Power Instrumentation, Control and Computing (PICC2018), January 18-20, 2018, at Government Engineering College Thrissur focused on the recent trends in power electronics, power systems and the allied areas. The conference was organized by the Department of Electrical Engineering Govt. Engineering College Thrissur, Kerala, India. The conference was organized as part of the umbrella conference - Fifth biennial International Conference on Emerging Trends in Engineering science & Technology, ICETEST 2018. ICETEST consists of seven sub-conferences in different Engineering streams including PICC2018. Papers in PICC track are published by IEEE whereas papers in other sub-conferences are published by CRC Press.

PICC2018 had technical sponsorship from **IEEE Industry Application Society** (IEEE IAS) and **IEEE Kerala Section**.  The conference was proved to be a forum for technical exchange among researchers from academia, research groups, and industries. All the presented papers have been submitted to IEEE for inclusion in IEEE Xplore digital library. Out of the papers presented in the conference, 20 % of the papers have been selected for possible publication in **IEEE Transaction on Industry Applications** subject to further round of review of the journal.

PICC2018 had 181 paper submissions from 8 countries including India and 85 papers were shortlisted for presentation at the conference after a rigorous review process by 113 reviewers from 12 countries including India. Most of the reviewers are active researchers in reputed institutions. 82 papers were presented in the conference. Two papers were from outside India. 36 papers were from different NITs and 19 papers were from IITs. 84% of the papers (69 papers) were from outside Kerala and only 16% (13 papers) of papers were from inside Kerala. All the presentations were oral presentations. No online presentation was permitted to ensure maximum participation and interaction of participants in the conference. The technical Program of PICC2018 consisted of five keynote talks in the focus area of the conference and seventeen technical sessions. The sessions were chaired by active researchers from reputed institutes. The keynote sessions were delivered by Prof. Jian Sun, Prof. A.K.S. Bhat, Dr. Akshay K Rathore, Dr. Vinod Khadkikar, and Prof. K. Gopakumar. The details are as follows:

**List of Keynote / Invited Speakers**

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| **Name of Speaker** | **Affiliation** | **Educational Qualifications/ Achievements** | **Title of Talk** | **Date** | **Time** |
| **Prof. Jian Sun** | Professor, Department of Electrical, Computer and Systems Engineering and  Director, New York State Center for Future Energy Systems  Rensselaer Polytechnic Institute,  **USA** | Ph.D. in Electrical Engineering, University of Paderborn Germany, 1995  MS in Electrical Engineering, Beijing University of Aeronautics and Astronautics , China, 1989  BS in Electrical Engineering, Nanjing University of Aeronautics and Astronautics , China, 1984  Post-Doctoral Fellow, School of Electrical and Computer Engineering , Georgia Institute of Technology , 1996-1997  Senior Engineer, Advanced Technology Center , Rockwell Collins , 1997-1999  Principal Engineer, Advanced Technology Center , Rockwell Collins , 2000-2002  He is a consultant to a dozen US companies.  His current Research Projects include Stability and Control of Cluster Converters Connected to Weak Grid, HVDC Transmission Architecture and Control for Offshore Wind, Voltage Stability and Control in Smart Grid, DC Micro Grid for Integration of Renewable Energy and Energy Storage, Integrated Single-Chip Solid State Lighting Driver Developing Using GaN Devices  GaN-Based High Frequency Power Conversion for Aircraft Applications, EMI Modeling and Design Optimization for More Electric Aircraft.  He is an **IEEE fellow** and Editor-in-Chief, IEEE Power Electronics Letters journal.  **He has 8 US patents to his credit** | **Power Electronics for Renewable Energy and Power Systems: Opportunities and Challenges** | 18.01.2018 | 10.00-11.00  **(PLENARY)** |
| **Dr. Akshay K. Rathore** | Associate Professor at Department of Electrical and Computer Engineering, Concordia University, Montreal, **Canada** | Dr. Akshay K. Rathore received his PhD degree in Power Electronics from University of Victoria, BC, Canada in 2008. He has secured above 3M US $ research funding at Singapore through various industries and government agencies. He has supervised over 20 PhDs, postdoctoral fellows, research engineers, and graduate students. Dr. Rathore is a recipient of 2013 IEEE IAS Andrew W. Smith Outstanding Young Member Award and 2014 Isao Takahashi Power Electronics Award. He was a consultant to WEG, Brazil, Crenergy Systems Pte Ltd, Singapore and Robert Bosch (SEA) Pte Ltd, Singapore. He has published over 130 research papers in reputed journals. He is an Associate Editor of IEEE Transactions on Industry Applications, IEEE Transactions on Industrial Electronics, IEEE Transactions on Transportation Electrification, IEEE Transactions on Sustainable Energy, IEEE Journal of Emerging Selected Topics in Power Electronics, and IET Power Electronics.  **He has one European Patent (commercialized by WEG Drives, Brazil)** | **Recent Progress in Current-fed Power Converters for High Voltage Gain Applications** | 18.01.2018 | 2.00-3.00  **(Keynote-I)** |
| **Dr. Vinod Khadkikar** | Associate Professor, Electrical Power Engineering,  Masdar Instituteof Technology, Abu-Dhabi, **UAE** | Dr. Vinod Khadkikar holds a PhD in Electrical Engineering from cole de Technologie Supérieure, Montreal, Canada (2008). He also holds an MTech in Power Electronics, Electrical Machines and Drives, from the Indian Institute of Technology (IIT), Delhi, India (2002).  From April 2010 to December 2010, he was a Visiting Faculty at the Massachusetts Institute of Technology, Cambridge, USA. Prior to joining the Masdar Institute, he worked as a Postdoctoral Fellow at the Department of Electrical and Computer Engineering, the University of Western Ontario, London (ON), Canada. He received a number of scholarships including MHRD (Government of India), Ministry of Education of Quebec (Canada) and scholarship awarded by École de Technologie Supérieure. Dr. Khadkikar’s current research interests include application of power electronics in renewable energy systems and smart grid, grid interconnection issues, electric power quality enhancement, active power filters and static reactive power compensation. He has more than 30 IEEE journal papers to his credit. | **Autonomous Microgrids: Operation, Control and Challenges** | 19.01.2018 | 9.00-10.00  **(Keynote-II)** |
| **Prof. K. Gopakumar** | Professor  Department of Electronic Systems Engineering (Formerly CEDT),  Indian Institute of Science (IISc) , Bangalore, **India** | Dr. Gopakumar K. did his M. Sc. (Engg.) (E.E.) in 1984 and Ph.D. (E.E.) in 1994 both from the Indian Institute of Science  He is a **Fellow of IEEE** and IETE, and Fellow Indian National academy of Engineers (FNAE). He has guided more than 25 PhD students and has more than 125 international journal publications to his credit.  He is Co Editor-in-Chief IEEE Trans. On Industrial Electronics.  IETE (India)- B.K Bose award for contributions to the area of power electronics and drives for high power applications  Distinguished Lecturer-IEEE Industrial Electronics Society  IISc Alumni award for Excellence in Research in Engineering-2016  ABB Chair professor 2016 -2018 | **Multilevel Inverter Topologies** | 19.01.2018 | 2.00-3.00  **(Keynote-III)** |
| **Prof. Ashoka K. S. Bhat** | Professor ,  Electrical and Computer Engineering, University of Victoria, **Canada** | BSc (Mysore), BE, ME (Indian Inst of Sci), MASc, PhD (Toronto, 1989). He is **fellow of IEEE** and PEng. He has more than 100 international journal papers to his credit.  **He has done pioneering work in the area of resonant power conversion and has several patents in this area.**  His current research interest include High-frequency link power conversion-resonant and pulse with modulation, Power converters for alternative energy sources, Design of electronic circuits for power control. | **Power electronics application in alternate energy systems** | 20.01.2018 | 9.00-10.00  **(Keynote-IV)** |

**PHOTOGRAPHS**











