Preface

The 19th Joint workshop on Electron Cyclotron Emission and Electron Cyclotron Resonance Heating (EC-19) was held in Gandhinagar, Gujarat, India on April 04-07, 2016. The workshop was hosted by Institute for Plasma Research (IPR), Bhat, Gandhinagar, India.

The workshop covered four major areas: Electron cyclotron wave (EC-wave) theory, Electron Cyclotron Emission (ECE), Experiments on ECE and ECRH on various tokamaks & Stellarators and Technology associated with ECE and ECRH. There were 12 sessions in four days of the workshop, which included 8 technical sessions, 2 poster sessions, inauguration and summary sessions. The contribution in all sessions are summarised by Dr. M. E. Austin and Dr. Burkhard Plaum. These summaries can be found in the beginning of the relevant section.

The EC-19 workshop at IPR India was a successful workshop with high quality of technical contributions from 63 participants from 12 countries including USA, Russia, Germany, The Netherlands, Japan, Korea, France, Italy and India. The workshop witnessed very insightful discussions during the oral and poster sessions. The main topics that were covered during this workshop included ECRH/ECCD and ECE in fusion plasmas. The technology development in the field of ECRH and ECE was covered in detail. The Gyrotron developments in Russia and Europe were also presented and discussed in detail. The ECRH experiments on various tokamaks including ASDEX, DIII-D & KSTAR were also discussed. The EC systems on various tokamaks were presented by several participants. The other important topics that were discussed include launcher design and other high power microwave systems. The contributions of the workshop received in the form of papers were compiled for publication as a Proceeding for EC-19 workshop. All the papers received from the authors are reviewed by the committee and now published online at EPJ Web Conference of Vol. XX (2017).

The local organizing committee chaired by Prof. Dhiraj Bora did an excellent job in organizing a successful workshop. The participants were offered good facilities with traditional Indian food. The hall arrangements for conducting the sessions at Hotel Narayani, Gandhinagar Gujarat provided the comfortable platform for the workshop. There was a fantabulous cultural program, which highlighted the culture of entire India, this program became memorable for EC-19 participants. I would like to thank my colleagues of International Program committee for their support and finalizing the agenda, program for the workshop, selecting the invited and oral contributions and chairing the various scientific sessions.

I would like to thank the sponsors who financially contributed for the workshop: IPR India, Gycom Russia, DRDO India were the key financial supporter for the workshop.

The members of local organizing committees were:
- Prof. Dhiraj Bora (Chairman)
- Braj K. Shukla (Secretary)
- R. Jha
- Hitesh Pandya
- S. Laxmikant Rao
I would like to thanks the reviewers for reviewing the manuscripts of EC-19 workshop. I would like to thank the team of editors:

- Hitesh B. Pandya
- S. Laxmikant Rao
- Suman Danani
- Vipal Rathod
- Hardik Mistry
- Egbert Westerhof
- Braj K. Shukla

Finally once again, I would like to thank my all the national and international colleagues, who helped in successfully organizing the EC-19 workshop in India. My best wishes for the next workshop EC-20 in Greifswald.

Braj K. Shukla
IPR, India, June 2017