

TU9 (Germany) -IIT Mandi Collaboration Workshop On Emerging Semiconductor Technologies on 26th & 27th September, 2014

IIT MANDI and TU9, Germany organized collaborative workshop on “Emerging Semiconductor Technologies” IECRAIETS – 2014 at IIT MANDI, Kamand Campus on September 26-27th, 2014. The objective of this collaborative confluence was to involve experts from semiconductor fields, especially micro/nano electronics, VLSI technology and explore possible future joint common interest on research & development among both the countries. Therefore, in this workshop with attendance of nearly 90 participants including, professors, scientists, faculties, and research students from other IITs, semiconductor industries and nearby elite institutes participated and interacted with experts of semiconductor technology. Additionally, this workshop provided a valuable opportunity for those involved in this to meet together and encourage each other for future research projects of semiconductor technology as per state of art requirement of electronics industry. Prof. Timothy A. Gonsalves, Director, IIT Mandi discussed vision and mission of IIT Mandi and initiatives for semiconductor technology facility creation at IIT Mandi. Beside this a proposed, Centre for design and fabrication of electronic devices, (C4DFED) at IIT Mandi home page was inaugurated by Prof. Jorg Schulze, Dean student, Stuttgart University, Germany and Prof. Timothy A. Gonsalves, Director, IIT Mandi. It aims to develop state of art facilities at IIT Mandi to enhance the research and cater the industry compatible manpower. Prof. Jorg Schulze, Stuttgart University, Germany gave talk on SiGeSn – a tunable semiconductor material for the infrared regime. Prof. Kenneth E. Gonsalves, University of North Carolina USA, presented the EUV-resists for ultra advanced IC Fab. along with ongoing research work of Intel U.S.A & IIT Mandi. Dr. Kamaljit Singh, SCL, (ISRO), Mohali and Dr. Satinder K. Sharma, IIT Mandi discussed on MEMS sensor development and FeRAM memory for next generation technology node. Prof. Anil Prabhakar and Dr. Udayan Ganguly from IIT Madras and IIT Bombay shared their work on magnonics and nanoscale memory. Dr. Ajay Soni, Dr. Bijay Krishna, Prof. V. Sahula, from IIT Mandi, IIT Madras and MNIT Jaipur talked about layered materials, optical interconnect and nanoscale memory design. Dr. Rakesh Kumar and Dr. Arnab Datta, IIT Ropar and IIT Roorkee discussed on prospects of grapheme and phase change memory device. Dr. Vikram Singh and Dr. Vishwanath Balakrishna, IIT Mandi, presented the radiation hardness on nano scale MOSFETs and strain engineering in advanced materials. Similarly, Mr. Ashish Joshi, Mr. Sunil Kumar and Ms. Debdatta Ray from IIT Mandi and IIT Madras also presented their research work on ADC using regulated current mirrors, solid state emitters for OLED application and plasmonic bulls eye structure for enhanced detector efficiency. Likewise, a large number of abstracts were received and selected abstracts were included for poster presentation. It was hoped that this workshop collegial interactions was an extraordinary opportunity for students and scholars to share their views with experts in the field in conjunction with strengthening & internationalisation of their research finding.