## Report of the visit of Dr Dr. Goutam Chattopadhyay, Chief Scientist, Senior Research Scientist, NASA-Jet Propulsion Laboratory, California Institute of Technology, USA under the Erudite scheme to the Department of Electronics, Cochin University of Science and Technology during 20<sup>th</sup> to 24<sup>th</sup> February 2018

Govt of Kerala introduced the Erudite scheme, a scholar in residence programme wherein experts from industry and academia are invited for a short period to the universities for sharing their knowledge. Dr. Goutam Chattopadhyay, Chief Scientist, Senior Research Scientist, NASA-Jet Propulsion Laboratory, California Institute of Technology, USA was invited to Department of Electronics, Cochin University of Science and Technology in February 2018. Dr Chattopadhyay has more than 30 years of experience specializing in High frequency radars, Terahertz receivers and nanotechnology applications at terahertz frequencies. From 1987 to 1992, he was working as a Design Engineer at Tata Institute of Fundamental Research. He was associated with California Institute of Technology since 1994 and Nasa-Jet Propulsion Laboratory since 2005. He is actively associated with IEEE and became a Fellow in 2011.

The formal inauguration of this Erudite program was done by Prof. Supriya M.H, the Head of the Department of Electronics, Cochin University of Science and Technology on 20<sup>th</sup> February 2018 at 10. am. The gathering was welcomed by the Co-ordinator Prof. P. Mohanan and introduced the Scholar to the audience. Prof K Vasudevan, welcomed the academic community and offered felicitations. The program was well attended by the faculty members, Research students, PG & UG students and IEEE APS members. The formal function was followed by a Keynote address by Dr. Chattopadhyay on "Terahertz Technology and its applications".



The Inauguration of Scholar in Research Program on 20th February 2018

On 21<sup>st</sup> February, Dr. Chattopadhyay gave a talk on talk on Radar systems. An interactive session with research scholars of the department was conducted in the afternoon. Dr. Chattopadhyay visited different laboratories in the department and discussed the various research activities of the students. The discussions with the students were very fruitful and this may alleviate the quality of the research publications from the department.



Keynote Address on 20<sup>th</sup> February 2018

Interaction with students and Lab visit on 21<sup>st</sup> February 2018

The program on 22<sup>nd</sup> February was about Antenna design from Terahertz to GHz. He introduced a novel antenna concept suitable for future integrated arrays at terahertz frequencies. Dr. Chattopadhyay. gave the keynote address as part of the curtain raiser for Sasthrayan 2018. The topic of the talk was "Are We Alone? NASA's Search for Life Beyond".



Talks on Antenna design for Terahertz applications on 22nd February 2018

A one day visit to Model Engineering College (MEC), Thrikkakkara was organized on 23rd February 2018. Dr Chattopadhyay's talk gave an insight into the vast arena of research and experimentation, hypothesis and assumptions involved with space exploration. In the afternoon he has visited the ST Radar Facility at Cochin University of Science & Technology.



1 day program at Model Engineering College, Trikkakkara on 23rd February 2018

On 24<sup>th</sup> February, he gave a talk on "How Students Can Build CubeSat and SmallSat Instruments". The talk was well attended and most of the students actively participated the event. In the afternoon he visited Centre for Science in Society and interacted with the Director Prof. K.G. Nair. He also addressed the school students visited the centre for the one day attachment program. After that he has visited the Science Park, ISRO pavilion, IEEE centre.

The entire programme was very interesting and highly informative to the academic community of our university. Some of the faculty members actively discussed their future plans on Terahertz Technology, Radar systems and Cube sat etc. The programme may lead to establish research in these emerging areas in the University.