

NeTSiP 2016

National Seminar on New Trends in Signal Processing (NeTSiP-2016)

(20th – 21st October 2016, Surat, Gujarat)

SPS Chapter of IEEE Gujarat Section, in association with IEEE India Council, has organized a Two-day national seminar on "New Trends in Signal Processing (NeTSiP-2016)" on 20th and 21st October 2016 at Sarvajanic College of Engineering and Technology (SCET) and Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, Gujarat (India). The prime objective of the program is to provide a platform for interaction with the help of expert talks by leading researchers in signal processing domain. These talks would highlight the recent developments and new trends in the sub-fields of speech, image, audio, and video processing, biometrics, media security, bioinformatics, and communications. Students, Faculty members, Ph.D. Scholars, Scientists, and Industry persons were invited to participate in NeTSiP-2016 and interact with the internationally acclaimed presenters. NeTSiP-2016 provided a unique opportunity for young researchers and students to interact, network and exchange ideas with established leaders.

During the two days, NeTSiP-2016 hosted the eminent speakers namely Prof. Yoram Bresler – Professor, Dept. of Electrical and Computer Engineering, Dept. of Bioengineering, University of Illinois, Urbana-Champaign, USA, Prof. Tulay Adali – Professor, Dept. of Computer Science and Electrical Engineering, UMBC, USA, Prof. Sumantra Dutta Roy – Associate Professor, IIT Delhi, Prof. Uttama Lehari – Associate Professor, IIT Gandhinagar, Prof. Ashwini Deshpande – Associate Professor, MKSSS's Cummins College of Engineering for Women, Pune and Prof. Anand Darji – Assistant Professor, SVNIT, Surat.

Total number of participants were as follows:

Professional Members	24
Students Members	44

Inauguration Ceremony

(Sarvajani College of Engineering and Technology)

The event started with a formal inauguration function on Thursday 20th October at around 9.30 am. The guests and speakers lighted the lamp along with a prayer during the function. Chirag Paunwala, Chair, IEEE SPS Chapter, Gujarat Section welcomed the guests and participants to NeTSiP 2016.



(Dignitaries during the Inauguration Ceremony)

NeTSiP 2016 - DAY 1: 20th October 2016

(Sarvajani College of Engineering and Technology)

Prof. Vaishali Mungurwadi, Principal, SCET welcomed all the dignitaries and participants in the program.



(Prof. Vaishali Mungurwadi, Principal, SCET)

Prof. Chirag N. Paunwala, Chair, SPS Chapter, Gujarat Section gave brief idea about the activities of SPS Chapter Gujarat Section and event NeTSiP.



(Prof. Chirag N. Paunwala, Chairman, SPS Chapter, GS)

Er. Kashyap Mehta, President of the Function encouraged the participants by words of motivation.



(Er. Kashyap Mehta, President of Function)

The inauguration ceremony was followed by a plenary talk by **Prof. Sumantra Dutta Roy**, Associate Professor, IIT Delhi. The topic of his talk was “**Translating Signal Processing Theory into Applications**”. The talk, through a series of case studies, demonstrated how concepts learned in common signal processing courses can be effectively applied to a wide variety of problems encountered in practical applications. He also demonstrated various signal transforms and its application through interesting examples.



(Session 1: Prof. Sumantra Dutta Roy)

Prof. Roy's talk was followed by a talk by **Prof. Tulay Adali**, Professor, University of Maryland Baltimore County, the USA on the topic “**Data-Driven Analysis of Medical Imaging Data: Overview, Challenges, and Prospects**”. She discussed the advantages and applications of analysis of medical imaging data using data-driven analysis methods. She also discussed the challenges faced in data-driven analysis with possible solutions and prospects of it. She also shared some case studies and work done using data-driven analysis methods.



(Session 2: Prof. Tulay Adali)

Prof. Uttama Lahiri, Associate Professor, IIT Gandhinagar delivered a talk on “**Signal Processing Techniques in Design of Gaze-based Prognostic Tool and Virtual Reality based Rehabilitation Platform for Patients with Neurological Disorders**”. Her talk was mainly based on the use of signal processing techniques to aid and help Neurological Disorder patients using Virtual Reality. She also explained that how her team's research work helped the patients to achieve significant improvements in their health. Her talk gave insights of the implementations of their work done using the Prognostic tool and Virtual Reality platforms.

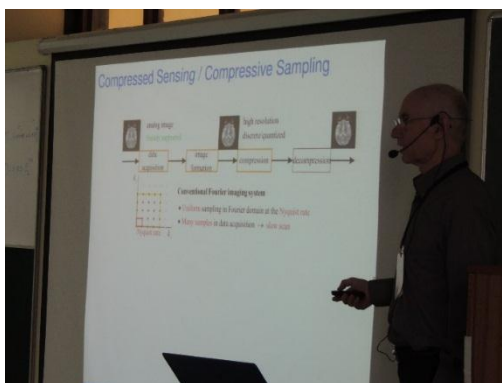


(Session 3: Prof. Uttama Lahiri)

NeTSiP 2016 - DAY 2: 21st October 2016

(Sardar Vallabhbhai National Institute of Technology)

On the second day, the first talk was delivered by **Prof. Yoram Bresler**, Professor, Dept. of Electrical and Computer Engineering, Dept. of Bioengineering, University of Illinois, Urbana-Champaign, the USA on “**The Origin of Compressed Sensing**”. Prof. Bresler covered almost all domains of signal processing applications, for compressed sensing in particular. His talk also covered all the analog to digital compression and reconstruction process used in compressed sensing and compressed sampling.



(Session 1: Prof. Yoram Bresler)

Prof. Ashwini Deshpande, Associate Professor, MKSSSS's Cummins College of Engineering for Women, Pune delivered a talk on “**Single Image Deblurring**”. The talk was mainly focused on the issues of blurring in the image and proposed solution for the same. Her talk gave detailed information about various types of blur, causes of blur and methods or algorithms to solve such problems. She gave a deep insight about the importance of single image deblurring and its real world applications. She also made the audience about the future scope in this direction.



(Session 2: Prof. Ashwini Deshpande)

The last talk of NeTSiP-2016 was delivered by **Prof. Anand Darji**, Associate Professor, SVNIT, Surat on “**Hardware-Efficient Implementation of Wireless Capsule Endoscopy**”. The talk briefly reviewed the advances in medical science using Wireless

Capsule Endoscopy. He also gave a brief about the advantages of using wireless technology and its efficient hardware implementation in endoscopy.



(Session 3: Prof. Anand Darji)

Valedictory Ceremony

(Sardar Vallabhbhai National Institute of Technology)

Finally, the event ended with an informal valedictory function where participants gave positive feedbacks about the event. Dr. Jignesh Sarvaiya, Vice-Chair, IEEE SPS Chapter, Gujarat Section thankfully acknowledged the unconditional support extended by the speakers, participants, organizing team and volunteers. Participation certificates were handed to the participants. The volunteers and organizing committee members were also given certificates for their support to make the event a grand success.



(Group Photo)

Talk on IEEE Membership and Benefits

As a part of Membership Drive conducted during the event, **Mr. Ankit Dave**, IEEE Young Professional Member, Gujarat Section gave a brief talk about the IEEE membership and benefits. He also shared his journey in IEEE and motivated the participants to join IEEE. He also solved the queries of participants regarding IEEE by interacting with them during both the days of NeTSiP 2016.



(Mr. Ankit Dave giving a talk on IEEE Membership and benefits)

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