Report
Distinguished Lecture Program

Organized by

IEEE Signal Processing Society, Gujarat Chapter

In association with

IEEE SPS CKPCET SBC and IEEE CKPCET SB

Date: 10th march 2023
Time: 11:00 to 12:30 AM
Venue: Seminar Hall, D2 Building, ECC Dept., CKPCET, Surat

Coordinators:
Dr. Mita C. Paunwala, HoD ECED, Branch Counsellor IEEE CKPCET SB
Dr. Amisha Shah, Assistant Professor ECED, Faculty advisor IEEE SPS CKPCET SBC

Student Coordinators:
Mr. Harsh Bhaliya, Student Chair IEEE CKPCET SB
Mr. Prakash Bhutaiya, Student Chair IEEE SPS CKPCET SBC

Number of Participants: **15** (IEEE members)
                           60 (Non IEEE members)

Speaker: Prof. Gaurav Sharma (University of Rochester, USA)
        Dr. Chirag Paunwala (Chair, IEEE SPS Gujarat Chapter)

A formal Inauguration of **IEEE SPS CKPCET SBC** was held on 10th March, 2023 at 11 Am by Dr. Gaurav Sharma IEEE fellow and Dr. Chirag Paunwala chair, IEEE SPS Gujarat Chapter. The inaugural ceremony commenced with the lighting of lamp by a group of dignitaries. The program was followed by Saraswati-Vandana and thereby officially launching the **IEEE SPS CKPCET SBC.**
Dr. Naimish Zaveri welcomed all the dignitaries present on the dais, HODs of various departments, Deans & students. He made introductory remarks on Navyug Vidyabhavan Trust and the institute. Dr. Chirag Paunwala chair, IEEE SPS Gujarat Chapter, described the importance of IEEE membership and related fields and how they are interconnected from a long

time. He motivated everyone to actively participate in the IEEE activities to get benefited. The inaugural ceremony followed by a distinguished Lecture on "Wearable Sensors Signal Processing and Data Analysis for Health Application". The details of the speakers are as follow:

Bio-sketch of speakers:

1. **Dr. Chirag Paunwala**

Dr. Chirag N. Paunwala completed his PhD from National Institute of Technology, Surat (NIT,Surat) in 2012. He is currently Professor, EC Department and Dean R&D at SCET, Surat. His area of specialization is Biomedical signal processing, Pattern Recognition, Image and Video Processing. He has published eight book chapters and also published 70+ research articles in excellent peer reviewed international journals/conferences.

He served as chair for IEEE Signal Processing Society, Gujarat Section during 2015-2016 and 2021-2023. Under his able leadership, chapter won the "Chapter of the Year" award thrice in 2015, 2016 and 2021. He was the youngest and first recipient of "Regional Meritorious Service Award", for exemplary service to and leadership in the IEEE Signal Processing Society in 2017. He served as Chapter Chair Coordinator for Membership board of IEEE SPS, USA for the year 2019. Currently, He is volunteering as Vice-chair for IEEE Gujarat Section. He has worked as a reviewer of technical journals such as IEEE Access, Springer, Elsevier, ACM and also served as Technical Programme member as well as advisory Committee member for IEEE conferences for many reputed conferences which includes TENCON, TENSYMP, INDICON, CVIP etc. He has served as Session chair for INDICON 2019, TENSYMP 2020 and CVIP 2020 to name a few.

He also received honor of NVIDIA GPU grant, GUJCOST-DST Project support grant, AICTE-AQIS, AICTE-ATAL and GUJCOST-DST seminar/FDP grants. He has also received grant of around 12000 USD from IEEE SPS for performing various activities to date. He has also received travel grant for ICASSP 2016 (Shangai), 2017 (USA), 2018(Canada), 2019(UK), 2022(Singapore) and ICIP 2019(Taiwan). Currently he is senior member of IEEE, Fellow member of IETE, member ACM and life member of Indian Unit for Pattern Recognition and Artificial Intelligence (**IUPRAI**). He is Chief Guest Editor for Scopus indexed EAI/Springer book on "Biomedical Signal and Image Processing with Artificial Intelligence" and "IoT Applications for Healthcare Systems". He is also serving as guest editor for Scopus indexed Special issue on "Applications of Soft Computing and Machine Learning Techniques for Biomedical Signals and Images", Bentham Publication House. Under his supervision, three PhD scholars successfully completed their defence and four more research scholars are working under him.

Prof. Gaurav Sharma

Short Biography Gaurav Sharma is with the University of Rochester, where he is a Professor in the Department of Electrical and Computer Engineering, Department of Computer Science, and Department of Biostatistics and Computational Biology. He is also a

Distinguished Researcher in Center of Excellence in Data Science (CoE) at the Goergen Institute for Data Science .

From 2008-2010, he served as the Director for the Center for Emerging and Innovative Sciences (CEIS), a New York state supported center for promoting joint university-industry research and technology development, which is housed at the University of Rochester. From 1996 through 2003, he was with Xerox Research and Technology in Webster, NY first as a member of research and technology staff and then as a Principal Scientist and Project Leader. He received the Ph.D. in Electrical and Computer Engineering from North Carolina State University, Raleigh, NC, and master's degrees in applied mathematics from NCSU and in Electrical Communication Engineering from the Indian Institute of Science, Bangalore, India. He received his Bachelor of Engineering degree in Electronics and Communication Engineering from Indian Institute of Technology, Roorkee (formerly, Univ. of Roorkee). Dr. Sharma is a fellow of the IEEE, a fellow of SPIE -- the international society for optics and photonics, and a fellow of the Society for Imaging Science and Technology (IS&T). He is also an elected member of Sigma Xi, the scientific research society and the Phi Kappa Phi and Pi Mu Epsilon honor societies.

Dr. Sharma was a 2020-21 Distinguished Lecturer of the IEEE Signal Processing Society and has previously served as an SPIE Visiting Lecturer. Dr. Sharma served as the Editor-in-Chief for the IEEE Transactions on Image Processing from 2018-2020 and as the Editor-in-Chief for the Journal of Electronic Imaging from 2011 through 2015. Dr. Sharma is a member of the Editorial Board of the Proceedings of the IEEE and has previously served and as an associate editor for the Journal of Electronic Imaging, for the IEEE Transactions on Information Forensics and Security and for the IEEE Transactions on Image Processing. He is the editor of the "Digital Color Imaging Handbook" published by CRC press. Dr. Sharma served as the 2010-2011 chair for the Image, Video, and Multi-dimensional Signal Processing Technical Committee, of the IEEE Signal Processing Society and as the 2007 Chair of the IEEE Rochester Section. He is also a past member of the IEEE Spectrum Editorial Advisory Board, the Information Forensics and Security Technical Committee, the Multimedia-Signal Processing Technical Committee of the IEEE SPS, and of the Industry DSP Technology Standing Committee, of the IEEE Signal Processing Society. He was the Chair and Co-Chair, respectively, for the 2013 and 2012 IS&T/SPIE Electronic Imaging (EI) Symposia and Technical Program Co-Chair for the 2012 and 2016 editions of the IEEE International Conference on Image Processing (ICIP). In 2015 and 2016, he served on the IEEE Signal Processing Society's Conferences Board and its Executive subcommittee.

Details of Talk:

Advances in nano-fabrication and MEMS devices have led to radical improvements in sensing technologies in recent years. These improvements are most visible to all of us in our Smartphones that already feature a panoply of miniaturized sensors. Many of the same sensors are also positively impacting several other application domains. In this talk, we highlight how smart light-weight body worn sensors are set to revolutionize health care and the practice of medicine by providing technologies for assessing biomarkers for physiological and physical attributes related to disease condition, treatment effectiveness, and longitudinal progression. In contrast with the subjective, sporadic in-clinic assessments that are in common use today, body-worn sensors can provide objective and repeatable measurements based on extended periods of continuous monitoring. Finally, we highlight ongoing and emerging directions for research and development.

Blessing of Maa Saraswati	Deep Pragatya
Host of the Event	Introduction of Institute
Prayer	Felicitation to Guest of Honour

SPS benefits by Chair, IEEE SPS GS	Memento to IEEE SPS Gujarat Chapter
Falicitation of Speaker	Talk delivered by speaker
Memento to the Speaker	Participants
Vote of Thanks	Interaction with students

Faculties of various departments with Speaker

Organizing team with DL Speaker

Special Thanks to Mr.Kiran Patel and Mr.Bharat Patel for helping in arrangement.

Report prepared by: Mr. Harsh Bhaliya (Chair, IEEE CKPCET SB)
Mr. Prakash Bhutaiya (Chair, IEEE SPS CKPCET SBC)