



Dr. Debdoot Sheet is an Assistant Professor of Electrical Engineering at the Indian Institute of Technology Kharagpur since 2014 and founder of SkinCurate Research, a Kharagpur, India based smart medical imaging devices startup. He was born in Kharagpur, India in 1986 and has spent his life across Kharagpur and Kolkata in India and Munich in Germany.

Dr. Sheet received the BTech degree in electronics and communication engineering in 2008 from the West Bengal University of Technology, Kolkata for studies at the Institute of Engineering and Management, Kolkata. His graduating thesis was on RFID system design and application which had also been published as 3 conference papers. Besides academics, he was an amateur embedded designer publishing his designs with Electronics for You magazine, and led the student run RFID design cell.

He obtained the MS and PhD degrees from the Indian Institute of Technology Kharagpur in 2010 and 2014 respectively. His MS thesis titled Feature Usability Index, presented a new conjecture on the relative utility of different features in machine learning for pattern recognition applications that was also published as a book. During this period he was partially supported through a research grants from Texas Instruments (TI) and developed image processing algorithms for TI's DSP/ARM based digital microscopy, digital mammography and ultrasound imaging reference designs and systems.

His PhD thesis was on computational modelling of tissue-energy interaction in acoustic and optical imaging for in situ diagnostic histopathology. Here he developed machine learning based multi-dimensional signal processing algorithms utilizing stochastic models of signal sensing uncertainty for computationally driven ultrasonic and optical coherence based *in situ* histopathology. He had spent one year during this period as a visiting scholar during 2011-12 supported through a DAAD fellowship at the Technical University of Munich, Germany and has worked in close association with physicians, researchers and professors from Columbia University in New York, Johns Hopkins University in Baltimore, CVPath Institute, Gaithersburg, MD, USA; UZ Brussels, Belgium; Medical College and Hospitals, Regional Institute of Ophthalmology and Guru Nanak Institute of Dental Science and Research at Kolkata, India. He has published extensively with more than 58 co-authors at leading journals including Medical Image Analysis (MedIA), Journal of Biomedical Optics (JBO), Computerized Medical Imaging and Graphics (CMIG), IEEE Transactions on Biomedical Engineering (TBME), IEEE Transactions on Consumer Electronics (TCE) and is also one the regular presenters in computational imaging and learning based approaches for imaging at the leading conferences like the IEEE International Symposium on Biomedical Imaging (ISBI) and SPIE Medical Imaging. He has filed 8 patent applications in India, US and Europe.

Part of his research on ultrasonic histology has been awarded the Samsung GRO grant of \$100k for second phase of development. He has also been awarded the IEEE Computer Society Richard E. Merwin Student Scholarship in 2012, the Fraunhofer Applications Award at the Indo-German Grand Science Slam in 2012, and led the team from IIT Kharagpur to win the GE Edison Challenge in 2013 for the first time since its inception.

Dr. Sheet is a member of IEEE, SPIE and ACM; is currently serving as Regional Editor of IEEE Pulse (official magazine of the IEEE Engineering in Medicine and Biology Society) since 2014; and as Editor-in-Chief of the IEEE Technology in Engineering Education (ITEE) (published by the IEEE Education Society) since 2014. He is also a regular reviewer for leading journals including IEEE Transactions on Medical Imaging (TMI), IEEE Transactions on Image Processing (TIP), IET Image Processing (IPR), IEEE Journal of Biomedical and Health Informatics (JBHI), Computer Methods and Programs in Biomedicine (CMPB), Neurocomputing and IEEE Potentials. He is a member of the steering committee of the IEEE Students' Technology Symposium (IEEE TechSym) since its inception in 2010, and has chaired its technical program committee in 2011 and 2014 architecting its rise to the list of Top-10 best places for students' to publish. He has also served as Secretary (2010) and Vice-Chair (2011) of the IEEE Student Branch of IIT Kharagpur, promoting its inception into the coveted IEEE University Partnership Program, and as Treasurer (2009) of the IEEE EMB Student Club of IIT Kharagpur (winner of the Best New Student Club award in 2009).

Beyond academics and research he is an avid photographer, foodie and globe trotter. You can find more to him on his personal page on <http://www.facweb.iitkgp.ernet.in/~debdoot/>