

Title: Document Forgery Detection using Hyperspectral Imaging

Abstract: Hyperspectral imaging and analysis refers to the capture and understanding of image content in multiple spectral channels. Satellite and airborne hyperspectral imaging has been the focus of research in remote sensing applications since nearly the past three decades. Recent use of ground-based hyperspectral imaging has found immense interest in areas such as medical imaging, art and archaeology, and computer vision. In this talk, I will highlight the potential of hyperspectral imaging to solve various challenging document image analysis problems, especially in the forensic document examination domain. I will present the use of hyperspectral imaging for ink mismatch detection in handwritten notes as a sample application. I hope that this presentation will encourage other researchers to explore its true potential in the forensic document analysis research field.



Bio: Faisal Shafait is currently working as the Director of Deep Learning Laboratory at the National Center of Artificial Intelligence, Islamabad, Pakistan as well as a Professor at School of Electrical Engineering and Computer Science, National University of Sciences and Technology (NUST), Islamabad, Pakistan. Previously, he was an Assistant Research Professor at the School of Computer Science and Software Engineering at The University of Western Australia in Perth, Australia; a Senior Researcher at the German Research Center for Artificial Intelligence (DFKI), Kaiserslautern, Germany; and a Visiting Researcher at Google Inc., Mountain View, California. He received his PhD with the highest distinction in computer engineering from TU Kaiserslautern, Germany in 2008. His research interests include machine learning and pattern recognition with a special emphasis on applications in document image analysis. He has co-authored over 150 publications in international peer-reviewed conferences and journals in this area. He is serving as the Founding President of Pakistan Pattern Recognition Society, which is IAPR's official chapter in Pakistan.