MENU

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Joined the Institute in July 2016

About

Hello world! I am working as an Assistant Professor at the department of Computer Science and Engineering of IIIT Guwahati. Prior to that, I was working as an Assistant Professor at IIIT Kota. I received my PhD degree from the department of CSE, Indian Institute of Technology Guwahati in 2016. My doctoral research area was robust watermarking of scalable video sequences. Recently we started working on the problem of text detection in natural images and other computer vision applications

Research Interests

Computer vision applications

Text detection in natural images

Automated license plate detection

Image and video watermarking

Teaching

CS101: Introduction computer Programming

CS677: Computer Vision

CS440: Image and video processing

CS340: Computer Graphics

Publication

Conference

- Naosekpam, Veronica, Mushtaq Islam, Amul Chourasia, and Nilkanta Sahu, "EMBiL: An English-Manipuri Bi-lingual Benchmark for Scene Text Detection and Language Identification", International Conference on Computer Analysis of Images and Patterns, (2023), Springer

- Naosekpam, Veronica, and Nilkanta Sahu, "IFVSNet: Intermediate Features Fusion based CNN for Video Subtitles Identification", 7th International conference for Convergence in Technology, (2022), IEEE

- Agarwalla, Bindu, Nilkanta Sahu, and Shirshendu Das, "PV-aware Replacement Policy for Two-level Shared Cache.", IEEE International Symposium on Smart Electronic Systems (iSES), (2022), IEEE

- Prithwish Sen, Anindita Das, Nilkanta Sahu, "Rendering Scenes for Simulating Adverse Weather Conditions", International Work-Conference on Artificial Neural Networks (IWANN 2021), (2021), Springer

- Naosekpam, Veronica, Ailneni Sai Shishir, and Nilkanta Sahu., "Scene Text Recognition with Orientation Rectification via IC-STN.", IEEE Region 10 Conference (TENCON), (2021), IEEE

- Prithwish Sen, Anindita Das, Nilkanta Sahu,, "End-to-End Scene Text Recognition System For Devanagari and Bengali Text", International Conference on Intelligent Computing & Optimization, (2021), Springer

- Naosekpam, Veronica, Sushant Aggarwal, and Nilkanta Sahu., "UTextNet : A UNet based Arbitrary shaped Scene Text Detector.", 21th International Conference on Intelligent Systems Design and Applications (ISDA 2021), (2021), Springer

- Anindita Das, Prithwish Sen, Nilkanta Sahu, "Adaptive Style Transfer Using SISR", International Conference on Computer Analysis of Images and Patterns (CAIP 2021), (2021), Springer

- Prithwish Sen, Anindita Das, Nilkanta Sahu,, "Object Detection In Foggy Weather Conditions", International Conference on Intelligent Computing and Optimization (ICO'2021)., (2021), Springer

- Veronica Naosekpam, Naukesh Kumar and Nilkanta Sahu, "Multi-lingual Indian Text Detector for Mobile Devices", International Conference on Computer Vision and Image Processing, (2020), Springer

- Borah, Sameeran, and Nilkanta Sahu., "ECASR: Efficient Channel Attention Based Super-Resolution", International Conference on Computer Vision and Image Processing., (2020), Springer

- Nilkanta Sahu, Vivek Tiwari and Arijit Sur, "Robust Video Watermarking Resilient to Temporal Scalability", NCVPRIPG2015, Patna, India, (2015),

- Priyatham Bollimpalli, Nilkanta Sahu and Arijit Sur,, "SIFT based robust image watermarking resistant to resolution scaling", In Proceedings of Image Processing (ICIP), (2014), pages. 5507-5511, IEEE International Conference

Book Chapters

- Naosekpam, Veronica, and Nilkanta Sahu, "Multi-label Indian scene text language identification", Intelligent Systems and Applications in Computer Vision., (2023), Taylor and Francis

- Nilkanta Sahu and Arijit Sur,Rajarshi Pal, "Scalable Video Watermarking : A Survey", Innovative Research in Attention Modeling and Computer Vision Applications, (2015), IGI Global Publication

Journal

- Naosekpam, V, Sahu, N. , "Few-shot learning for word-level scene text script identification.", Computational Intelligence, (2023), Wiley Online Library

- Agarwalla, Bindu, Shirshendu Das, and Nilkanta Sahu., "Process variation aware DRAM-Cache resizing", Journal of Systems Architecture ,123, (2022), Elseivier

- Naosekpam, Veronica, and Nilkanta Sahu., "Text detection, recognition, and script identification in natural scene images: A Review", International Journal of Multimedia Information Retrieval,11, (2022), pages. 291-314, Springer

- Agarwalla, Bindu, Shirshendu Das, and Nilkanta Sahu. , "Efficient cache resizing policy for DRAM-based LLCs in ChipMultiprocessors", Journal of Systems Architecture ,113, (2021), Elseivier

- Nilkanta Sahu, and Arijit Sur, "SIFT based video watermarking resistant to temporal scaling", Journal of Visual Communication and Image Representation,Volume 45, (2017), pages. 77-86, ISSN 1047-3203

- Shuvendu Rana, Nilkanta Sahu, and Arijit Sur, "Robust watermarking for resolution and quality scalable video sequence", Multimedia Tools and Applications Springer US,vol. 74, (2016), pages. 7773-7802,

- Nilkanta Sahu, Shuvendu Rana and Arijit Sur, "MCDCT-TF based video watermarking resilient to temporal and quality scaling", Multimedia Tools and Applications,75, (2016), Springer

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- Arijit Sur, Sista Venkat Madhav Krishna, Nilkanta Sahu and Shuvendu Rana, "Robust watermarking for resolution and quality scalable video sequence", Multimedia Tools and Applications Springer US,vol. 74, (2015), pages. 7773-7802,

- Sur, A., Madhav Krishna, S. V., Sahu, N., & Rana, S. , "Detection of motion vector based video steganography", Multimedia Tools and Applications,74, (2015), pages. 10479-10494, Springer

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