Samruddhi Kahu

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🌐 https://samruddhikahu.github.io

EDUCATION

Professional Master's (Embedded and Cyber-Physical Systems)(4.00/4)   June 2020
University of California, Irvine, USA

- Project: Fast Block-size Split Decision in HEVC encoder using Convolutional Neural Networks
- Relevant Courses: Embedded Systems Modeling and Design - SystemC

Doctor of Philosophy (CGPA 9.57/10)   Sept. 2019
Visvesvaraya National Institute of Technology, Nagpur, India

- Thesis: Image and Video Compression Techniques in CIE L*a*b* Color Space.
- Relevant Courses: Pattern Recognition, Image Analysis and Computer Vision.

Master of Technology (Communication Systems Engineering) (CGPA 8.96/10)   June 2014
Visvesvaraya National Institute of Technology, Nagpur, India

- Thesis: Histogram-based Segmentation of Color Images using Genetic Algorithms.
- Relevant Courses: Fuzzy Logic & Neural Networks, Digital Image Processing, Statistical Signal Analysis, Embedded System.

Bachelor of Engineering (Electronics & Comm. Engg.) (73.71%)(1st Division)   June 2011
Shri Ramdeobaba Kamla Nehru Engineering College, Nagpur, India

- Project: Detecting speed of cars using video sequences.

PUBLICATIONS

1. **S. Y. Kahu**, K. M. Bhurchandi, "A low-complexity, sequential video compression scheme using frame differential directional filter bank decomposition in CIE *La*b** color space," *IEEE Access*, vol. 5, pp. 14914-14929, 2017.

2. **S. Y. Kahu**, K. M. Bhurchandi, "JPEG-based variable block-size image compression using CIE *La*b** color space," *KSII Transactions on Internet and Information Systems.*, vol. 12, no. 10, pp. 5056 - 5078, 2018.

3. **S. Y. Kahu**, R. B. Raut, K. M. Bhurchandi, "Review and evaluation of color spaces for image/video compression," *Color Research and Application, Wiley*, vol. 44, no. 1, pp. 8 - 33, 2019.

4. P. Sneha Latha, Pawan Kumar, **S. Y. Kahu**, K. M. Bhurchandi, "Segmentation of color images using genetic algorithm with image histogram," *7th International Conference on Machine Vision 2014*, Milano, Italy.

PROFESSIONAL EXPERIENCE

Associate SQA Engineer   2011-2012
Marvell India Pvt. Ltd., Pune, India

- Pre-certification testing of Wi-Fi devices and access points.

AREAS OF SPECIALIZATION

Image & Video Compression	Wavelet Transform	Color Spaces
Convolutional Neural networks	Contourlet Transform	JND-based Quantization

SKILLS

Programming Languages	MATLAB, C/C++, Python
Softwares	H.264/AVC, H.265/HEVC, PyTorch