

Spoorthi G.E.

Education

- **Indian Institute of Technology Tirupati** Tirupati
M.S (by Research) in Image Processing and Machine Learning; CGPA: 8.5/10 *Jul. 2017 – Nov. 2019*
- **R.N.S. Institute of Technology** Bangalore
B.E. in Electronics and Communication; Overall Percentage: 75.05 % *Aug. 2010 – Jul. 2014*

Professional Experience

- **K2O Consulting Private Limited** Bangalore
Research and Development Engineer *Feb. 2020 - April. 2022*
 - Generated precise depth map from structured light technique for the development of intraoral scanners.
 - Developed post-processing and pre-processing tools for proper registration and visualization of 3D model.
- **National Flight Test Center, Aeronautical Development Agency** Bangalore
Junior Research Fellow *Aug. 2016 - Jul. 2017*
 - Worked in telemetry department and monitored the noise level of audio and video signals received from antennas and ensured smooth testing of Light Combat Aircrafts for Indian Air Force and Navy.
- **Infosys, Microsoft Division** Hyderabad
Software Engineer *Jun. 2014 - Nov. 2015*
 - Developed a service ticketing system in X++ for Microsoft's ERP Axapta using .Net web services.
 - **Award:** Awarded as **Rising star** of the organization for outstanding performance.

Publications

- **G. E. Spoorthi**, S. Gorthi and R. K. S. S Gorthi, *PhaseNet 2.0: A Deep Learning Approach for Unwrapping the Phase from Noisy Data*, in **IEEE Transactions on Image Processing**, vol. 29, pp. 4862-4872, Mar. 2020.
- **G. E. Spoorthi**, S. Gorthi and R. K. S. S Gorthi, *PhaseNet: A Deep Convolutional Neural Network for Two-Dimensional Phase Unwrapping*, in **IEEE Signal Processing Letters**, vol. 26(1), pp. 54-58, Jan. 2019. (**Among top 25 popular articles**)
- **G. E. Spoorthi**, S. Gorthi and R. K. S. S Gorthi, *A Deep Learning-based Model for Phase Unwrapping*, in proceedings of Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP) - 2018. (**Long-oral**)
- Rakesh Chowdary, **G. E. Spoorthi**, S. Gorthi and R. K. S. S Gorthi, *End-to-End Deep Learning-based Fringe Projection Framework for 3D Profiling of Objects*, in *Computer Vision and Image Understanding*, vol. 199, pp. 103023, Oct. 2020

Technical Skills

- **Programming languages:** Python, C++, MATLAB and C
- **ML and CV packages:** TensorFlow, PyTorch, OpenCV
- **Courses:** Image Processing, Computer Vision, Machine Learning, Signal Processing, Computational Neuroscience

Notable Projects

- **Semantic segmentation:** Encoder-Decoder CNN for semantic segmentation
- **Depth estimation from a stereo pair of images:** Deep learning based pyramid stereo matching network
- **Fourier transform profilometry for 3D reconstruction:** Classical signal processing technique for 3D profiling
- **Phase unwrapping by pixel clustering and surface fitting :** Clustering based algorithm for phase unwrapping