

## Curriculum Vitae

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**Position:** Associate Professor in Computer Science

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**Date of Birth:** 25<sup>th</sup> December 1964

### **Ph.D. Work (Department of Computer Science, M.K. University):**

- Designed and developed Artificial Neural Network based Image Reconstruction technique for EMR tomography.
- Designed and developed Feature Identification in color EMR Images using Spherical Coordinates Transform and Color quantization.
- Designed and developed PCT-based Feature Identification technique for the analysis of color EMR Images.
- Designed and developed Artificial Neural Network based robust feature identification system for color EMR tomograms.
- Gained experience and exposure to various techniques of EMRI such as Continuous Wave EMRI and Single-Point Imaging.

### **Post-Doctoral Research Work (2 Years at NIH, Bethesda, MD, USA):**

- Parallel-Processing approach for 3-D Oximetry SPI Image Reconstruction, Filtration and Processing
- MRI and EMRI Data Processing and Image Analysis
- Brain EAE Disease Model - MRI Data Processing and Analysis
- EPR Spiral Imaging – Data Acquisition and Processing

**Grants Received:** Minor Research Project entitled “Development of Object-Oriented Library for EMRI Analysis” funded by UGC, New Delhi, India (2002-2004)

### **Publications:**

D. Christopher Durairaj, M. C. Krishna and R. Murugesan, “Integration of color and boundary information for improved region of interest identification in electron magnetic resonance images”, *Comput. Med. Imag. Grap.* 28 (2004) 445-452.

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D. Christopher Durairaj, Murali C Krishna, Ramachandran Murugesan, A feature identification system for electron magnetic resonance tomography: Fusion of principal components transform, Color Quantization and boundary information, *Journal of Math Imaging Vis*, 30 (2008) 284-297

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S. Kartheeswaran and D. Christopher Durairaj. "A hybrid genetic algorithm and back-propagation artificial neural network based simulation system for medical image reconstruction in noise-added magnetic resonance imaging data," *IEEE Digital Xplore* 2015, doi: 10.1109/GET 2015.7453863

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R.Vasanthi, Dr D Christopher Durairaj, presented the paper on "Extraction of Significant Information for Visualization and Reconstruction of Landsat Multispectral Satellite Images using Principal Component Analysis, SAMVIT 2K21-International Virtual Conference on Emerging Trends in Science and Technology at St. Claret College, Bengaluru, (ISBN 978-93-5493-863-4), August 05-06, 2021.

R.Vasanthi. Dr D. Christopher Durairaj, presented the paper on "Hyperspectral Image-Based Land Cover Prediction Using Improved Elman Network Model" AICTE Sponsored International Conference on Emerging Trends in Communication and Networking (ETCAN 21). Kongunadu College of Engineering & Technology. Trichy, Tamilnadu on 22nd-23rd October 2021.

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