

FACULTY PROFILE

ALEX RAJ S. M.

Associate Professor

Specialization : Electronics Design

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Academic Qualification

	Specialisation	University/Institution
M. Tech	Electronics Design and Technology	IISc., Bangalore
B. Tech	Electronics and Communication Engg.	Madurai Kamaraj University

Membership in Professional Societies : ISTE

Personal Information

Gender : Male

Residential Address : TC 2/3398(11), CRRA E-49,
Pattom, Trivandrum.

Postal Code : 695004

Areas of Interest

FPGA based System Design

Embedded System

VLSI Circuit Design

Microcontroller

Publications

- [1] Alex Raj S. M. Khadeeja N. and Supriya M. H., "Implementation of Histogram Based Image Fusion Technique for Underwater Image Enhancement in Reconfigurable Platform," *Indian Journal of Science and Technology*, vol. 10, no. 26, Jul. 2017.
- [2] Alex Raj S. M., Claris Jose, And Supriya M. H., "Hardware Realization Of Canny Edge Detection Algorithm For Underwater Image Segmentation Using Field Programmable Gate Arrays," *Journal of Engineering Science and Technology*, School of Engineering, Malasia vol. 12, no. 9, pp. 2536–2550, 2017.
- [3] Alex Raj S. M. and Supriya M. H., "Hardware Co-simulation of Underwater Moving Object Detection using Xilinx System Generator," *International Journal of Oceans and Oceanography ISSN*, vol. 10, no. 1, pp. 973–2667, 2016.
- [4] Alex Raj S.M., Abhilash S., and Supriya M.H., "A Comparative Study of Various Methods for Underwater Image Enhancement and Restoration," *IOSR Journal of VLSI and Signal Processing*, vol. 6, no. 2, pp. 30–33.
- [5] Alex Raj S. M. Rita Maria Abraham and Supriya M. H., "Spatial filtering based Boundary Extraction in Underwater Images for Pipeline Detection: FPGA Implementation," *International Journal of Computer Science and Information Security*, USA, vol. 14, no. 9, pp. 790–794, 2016.
- [6] Alex Raj S. M., Khadeeja N. and Supriya M. H., "Performance Evaluation of Image Processing Algorithms for Underwater Image Enhancement in FPGA," *IOSR Journal of VLSI and Signal Processing*, vol. 5, no. 4, pp. 17–21.
- [7] Alex Raj S. M. Aruna S. Rajan and and Supriya M. H., "A Comparative Study of Vision Guided AUV Navigation Techniques for Pipeline/Cable Inspection," *SSRG International Journal of VLSI & Signal Processing*, vol. 2, no. 4.
- [8] S. M. Alex Raj and M. H. Supriya, "FPGA Implementation of Underwater Image Enhancement using Nonlinear Filtering," *Indian Journal of Science and Technology*, vol. 8, no. 35, Dec. 2015.
- [9] S. M. Alex Raj S.M., Rita Maria Abraham and Supriya M. H. "Vision-Based Underwater Cable/Pipeline Tracking Algorithms in AUVs: A Comparative Study," *International journal of engineering and advanced technology.*, vol. 5, no. 4, pp. 48–52, 2016.
- [10] Alex Raj S. M., Deepa S., and Supriya M. H., "Underwater image enhancement using CLAHE in a reconfigurable platform," in *OCEANS 2016 MTS/IEEE Monterey*, USA, 2016, pp. 1–5.

Talks Delivered

Expert in a two day workshop at GEC, Kannur on Electronic Product Design under VFS on 24/3/2009 and 25/3/2009

Delivered a lecture on "Introduction to VLSI Design' at RIT Kottayam in connection with STTP "Emerging Trends in Embedded Systems and VLSI Design " on 29/01/2008

Delivered a lecture on “Recent Advances in Microcontrollers and Applications” for the DTE sponsored STTP at CET, Trivandrum.

Delivered a lecture on “Image Processing” for the STTP “Numerical Simulation using Matlab” at GECBH, Trivandrum.

Delivered a lecture at LourdeMathacollege, Kuttichal in 2016

Interaction with outside Institution

Subject Expert in the interview board for the recruitment of Executive Personal held on 4/12/2013 and 5/12/2013 at KELTRON.

Member, Condemnation Committee, Govt. Analyst Laboratory, Trivandrum.

Screening committee member, KSCST, in connections with National Technology Day Celebrations.

Reviewer, Journal of Engineering Science and Technology, Malaysia.

Subjects Taught

Digital Electronics

VLSI Circuit Design

Micro processors

Computer Organization

VLSI Structures for DSP

DSP System Design

Digital System Design using VHDL

Digital Image Processing

Digital signal Processing

Analog Integrated Circuits