MITHUN HARIDAS T.P.

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COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY
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Research Profile: [Google Scholar Citation](#)

AREAS OF INTEREST

- Machine Learning/Deep Learning
- Image/Video Analytics
- Signal Processing
- Embedded Systems

EDUCATION

Pursuing PhD,
2017 - Ongoing
Topic: Machine Learning, Image/Video Analytics
Department of Electronics, Cochin University of Science and Technology, Kerala.

M.Tech. – Embedded Systems
2010-2012
Amrita Vishwa Vidyapeetham, Coimbatore, India

B.Tech. – Electronics & Communication Engineering
2006-2010
University of Calicut, Kerala

TEACHING EXPERIENCE (5 YEARS)

Assistant Professor,
Cochin University of Science and Technology
Department of Electronics,
2015 – Till Date

INDUSTRIAL EXPERIENCE (3 YEARS)

Associate System Engineer,
IBM India
2012–2015

INTERNSHIP EXPERIENCE

Intern (Embedded System Developer),
Amrita Biomedical Research Center(AMBE), Coimbatore
30.05.2011 to 27.07.2012 (1+ year)
Design and Development of Embedded System Solution for AMRITA Insulin Pump

Intern (Trainee)
Bosch Training Centre, Bangalore
20.10.2011 to 22.10.2011
Training on Bosch Diesel Fuel Injection System, Gasoline System and Vehicle Diagnosis

SKILLS

General Purpose Languages: Python, C, Matlab
Machine Learning Frameworks: TensorFlow, Keras, PyTorch, Scikit-Learn
Documentation: MS Office, LATEX

FUNDED RESEARCH PROJECTS

1. *Project: Machine Learning Models for Underwater Image Enhancement and Content Analysis.*
   Funding Agency   : Naval Research Board(NRB) - DRDO, Ministry of Defense, Govt. of India
   Role   : Co-Investigator
   Budget   : 48 Lakhs,
   Duration   : 2 years (2020-2022)

CONSULTANCY PROJECTS

1. *Project: Detection and classification of punch in Amateur Boxing using IoT sensors and Machine Learning.*
   Collaborating Company   : Bagmo Pvt. Ltd., Maker Village, Kochi
   Role   : Consultant
   Estimated Project Budget   : 1 Lakh
   Duration   : 3 months (2020)
2. *Project: Machine Learning Algorithm development for Temperature prediction system for Vaccine supply chain.*
   Collaborating Company   : Bagmo Pvt. Ltd., Maker Village, Kochi
   Role   : Consultant
   Estimated Project Budget   : 1 Lakh
   Duration   : 3 months (2021)

JOURNAL PUBLICATION (2nos)

1. Shamsudheen Marakkar, Mithun Haridas T.P. and Supriya M.H., "Performance Comparison of Convolutional Neural Network-based model using Gradient Descent Optimization algorithms for the Clas-sification of Low Quality Underwater Images", Journal of Science and Technology, Vol. 05, Issue 05, Sep-October 2020, pp227-236. doi:10.46243/jst.2020.v5.i5.pp227-236

2. Ananthanarayanan.V, Mithun Haridas.T.P, Naveen.R, Rajeswari.A, "Reliable and Affordable Embedded System Solution for Continuous Blood Glucose Maintaining System with Wireless Connectivity to Blood Glucose Measuring System", IJCA Proceedings on Amrita In-ternational Conference of Women in Computing - 2013 AICWIC(2), Pp 36-43, January 2013.

CONFERENCE PUBLICATION (6nos)

1. N. A. Nezla, T. P. Mithun Haridas and M. H. Supriya, "Semantic Segmentation of Underwater Images using UNet architecture based Deep Convolutional Encoder Decoder Model," *2021 7th International Conference on Advanced Computing and Communication Systems (ICACCS)*, 2021, pp. 28-33, doi: 10.1109/ICACCS51430.2021.9441804.
2. P. Athira., T. P. Mithun Haridas and M. H. Supriya, "Underwater Object Detection model based on YOLOv3 architecture using Deep Neural Networks," *2021 7th International Conference on Advanced Computing and Communication Systems (ICACCS)*, 2021, pp. 40-45, doi: 10.1109/ICACCS51430.2021.9441905.
3. E. S. Saleh, T. P. Mithun Haridas and M. H. Supriya, "Unsupervised Image Segmentation model based on W Net architecture and Conditional Random Field for Underwater Images," *2021 7th International Conference on Advanced Computing and Communication Systems (ICACCS)*, 2021, pp. 34-39, doi: 10.1109/ICACCS51430.2021.9441963.
4. Edwin Jose, Greeshma Manikandan, MithunHaridas T.P. and Supriya M.H., "Face Recognition based Surveillance System Using FaceNet and MTCNN on Jetson TX2," 2019 5th International Conference on Advanced Computing & Communication Systems (ICACCS), Coimbatore, India, 2019, pp. 608-613, doi: 10.1109/ICACCS.2019.8728466.
5. Surejya Suresh, Mithun Haridas T.P. and Supriya M.H., "Sign Language Recognition System Using Deep Neural Network," 2019 5th International Conference on Advanced Computing & Communication Systems (ICACCS), Coimbatore, India, 2019, pp. 614-618, doi: 10.1109/ICACCS.2019.8728411.
6. Nicky Kattukkaran, Arun George, Mithun Haridas T.P, Intelligent Accident Detection and Alert System for Emergency Medical Assistance, International Conference on Computer Communication and Informatics (ICCCI -2017), January 05 07, 2017. doi: 10.1109/ICCCI.2017.8117791

INVITED TALK AND RESOURCE PERSON (selected)

1. "Training Program on Hardware Modelling using VHDL" at Department of Instrumentation, Cochin University of Science and Technology, Kochi on 24 August 2017 (Invited Lecture)
2. "Machine Learning Workshop" in association with International Symposium on Embedded System Design, ISED-2018at Department of Electronics CUSAT on 15 December 2018 (Resource Person)
3. Faculty Development Program on "Artificial Intelligence and Machine Learning: Theory and Application" sponsored by KTU organized by Rajagiri School of Engineering and Technology, Kochi on 01 to 05 February 2021 (Resource Person)
4. Invited Talk on "Artificial Intelligence" organized by Department of Chemistry, St. Joseph's College for Women, Alappuzha on 12 January 2021. (Invited Talk)

5. Faculty Development Program on "Recent Trends in Machine Learning and Data Science" organised by TocH Institute of Science and Technology, Kochi on 02 June 2021 (Resource Person)

TECHNICAL TRAINING (selected)

1. Machine Learning Algorithm using Python conducted by Intel Higher Education at NITTTR Chandigarh on 25 to 29 July 2017 (Faculty Development Program)
2. Nvidia DLI Institute Workshop on Deep Learning conducted by NVIDIA Corporation, at Department of Electronics, CUSAT on 12 October 2017 (Workshop)
3. Machine Learning Workshop in association with Amazon Corporation at Department of Electronics, CUSAT on 15 December 2018 (Workshop)
4. Deep Learning Workshop conducted by Tata Consultancy Service at Department of Computer Science, CUSAT on 03 to 04 January 2019 (Workshop)
5. Deep Learning Part – 1 NPTEL certification by IIT Madras, from January to April 2020 (Refresher Course) – Topper with Elite Gold Certificate