SYED JAWAD AKHTAR

COMPUTER ENGINEER

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in syed-jawad-akhtar   ⬡ syedjawadakhtar

EDUCATION

Bachelors in Computer Engineering
Zakir Husain College of Engineering and Technology

📅 2016 – 2020   📍 Aligarh,India

Secondary Education & High School
International Indian School

📅 2012-2016   📍 Jeddah, Saudi Arabia

Central Board of Secondary Education

EXPERIENCE

Research Internship
The University of Kiel

📅 June 2019 – August 2019   📍 Kiel, Germany

- Applying Artificial Neural Networks (ANN) on Geo-mechanics (Civil Engineering)
- Use of analytical ANN for predicting thermal conductivity of sands and rocks from all around the world.
- Code documentation and article writing for paper publication.

Chairperson
Autonomous Underwater Club (Marine Technological Society) - ZHCET

📅 August 2019 – July 2020   📍 Aligarh, Uttar Pradesh

- Mentor of MATE ROV International competition
- Organizing workshops and seminars for awareness of underwater robotics
- Vehicle simulation in Gazebo Robotics Simulator
- Research and development of acoustic localization on the AUV

Summer Intern
Saudi White Cement

📅 June – July 2018   📍 Saudi Arabia

- Training on security aspects of a production company - Tutored on N+ CompTIA course
- Hands on Experience of ERP (Enterprise Resource Planning) - Oracle
  Describing Cash Flow, Inventory & other major modules used in a manufacturing company.

PROJECTS

Deep Reinforcement Learning on AUVs - Final Year Project
Zakir Husain College of Engg. & Tech.

📅 August 2020   📍 India

Phase 1: Simulation of AUVs for detecting underwater pipeline defects using Reinforcement Learning.

Phase 2 - Comparative study of RL optimizers (SAC & PPO) for completing the tasks.

Tools & Algorithms: Unity, ml-agents, ROS, Gazebo, RViz, Blender, Google Sketch-up

Acoustic Localization of AUV's
Autonomous Underwater Vehicle Club

📅 January 2019   📍 India

Localization of a beacon underwater, using an array of hydrophones on an unmanned underwater vehicle.

Tools & Algorithms: Labview, NI MyRIO board, Aquarian H1C hydrophones, Time Delay of Arrival (TDOA)

Camera tuning using Deep Reinforcement Learning
Zakir Husain College of Engg. & Tech.

📅 December 2018   📍 India

DRL used to tune white-balance settings of camera app according to the environment while taking pictures - **Minor Project - Junior year**

Tools & Libraries: Keras library, socket programming, CNN data set MobileNetV2, Android App programming (Java)

LANGUAGES/SKILLS

C   C++   Python   Java   MATLAB

C#   SQL

ROS 1 & 2   Gazebo   Unity   Blender

Simulink   LabView   Android Studio

LaTeX   Markdown

Photoshop CS6   Premeire CS6

Audition CS6

PUBLICATIONS

Effective thermal conductivity of unsaturated sand using artificial neural network (ANN) and lattice element method (LEM) - [Link]
International Journal of Thermal Sciences

📅 February 2020

Estimation of seismic wave velocities of crustal metamorphic rocks using ANN - [Link]
Materials today: Proceedings

📅 December 2019   📍 Mathura, India

Effective thermal conductivity of unsaturated soils based on deep learning algorithm - [Link]
2nd International Conference on Energy Geotechnics

📅 November 2020   📍 La Jolla, California

PATENTS

A low cost Autonomous Underwater Vehicle having five degrees of freedom and two thrusters
U.S. Patent Filing No. 15949553

📅 March 2018   📍 United States

6 Pin Underwater Electrical Connector
Indian Patent Application No. 201811027144

📅 July 2018   📍 India

SCORES

English Proficiency Test
TOEFL iBT

📅 09 November 2019   📍 New Delhi,India

Highest Score: 96/120, Reading – 24/30, Listening – 22/30, Speaking – 25/30, Writing – 25/30

WORKSHOPS/CONFERENCES

- **Presenter - 10th International Conference on Materials Processing and Characterization (ICMPC - 2020**
- **NoSQL, Bigdata & Artificial Intelligence Conference by Datumcom**
- **Introduction to UAV's and Drones**
- **Android Web Development and Web Designing**

ACHIEVEMENTS

🏆 **Students Autonomous Underwater Vehicle Competition 2019**
Won 4th position nationally - computer team member

🏆 **Singapore AUV Challenge 2018**
Lead the team and won the Best AUV award

🏆 **Co - Founder of AUV ZHCET Club**
One of the founding members of the technical club in college

🏆 **Top 4 Idea Presentation**
"AUV Surveillance" at Inspiring Entrepreneurs Summit 2018, Saudi Arabia

🏆 **1st Prize in Mobile app Mock up competition by IEEE**
Made an app for foodies and food makers to share recipes - The Food Up app

☁ **HackDTU Hackathon**
Implemented & showcased an online car parking system

🏆 **School Topper**
In high school, 1st position by scoring 96 % in Computer Science

STUDENT MEMBERSHIPS

IEEE Oceanic Engineering
Zakir Husain College of Engg. & Tech.

📅 March 2019   📍 India

Marine Technology Society
Zakir Husain College of Engg. & Tech.

📅 April 2020   📍 India

COURSES

- **Self-Driving Cars with ROS 2 and Autoware** – ApexAI
- **Deep Learning A-Z™** – Hands on Artificial Neural Networks Proficiency course on Python - **Udemy**
- **Programming for Robotics - ROS** – By Institute of Robotics and Intelligent Systems, Robotics Systems Lab - **ETH Zurich**
- **Artificial Intelligence for Robotics** – **Udacity**

CO-CURRICULAR

- Blood donation campaign organizer

- Official Photographer of hall festival

- First prize in photography competition in hall festival

- Social Media manager at Recrufest 2018 - A Mega Job fair

REFERENCES

Prof. Dr.-ing habil. Frank Wuttke

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Kiel-24118, GERMANY

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Zakir Husain College of Engg. & Tech.
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Aligarh-202002, INDIA

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