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

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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

📅 March 2021   📍 La Jolla, California

- Accepted

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**
- **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^{TM}** – 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

Chair of Geomechanics and Geotechnics

@ Institute of Applied Science

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The University of Kiel
Kiel-24118, GERMANY

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Dr. Saleem Anwar Khan

Associate Professor

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

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Dr. Rashid Ali

Associate Professor

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