

# SYED JAWAD AKHTAR

## COMPUTER ENGINEERING STUDENT

@ syedjawadakhtar@gmail.com ☎ 0091-8755341105  
🏠 Room No. 38, Bhopal House, Sir Shah Sulaiman Hall, Aligarh Muslim University 📍 Aligarh, India  
🌐 www.syedjawadakhtar.github.io 🐦 @syedjawadakhtar 🌐 linkedin.com/in/syed-jawad-akhtar  
🐙 github.com/syedjawadakhtar

## EDUCATION

### Bachelors in Computer Engineering

#### Zakir Husain College of Engineering and Technology

📅 2016 – Present 📍 Aligarh, India

### Senior Secondary Education

#### International Indian School

📅 2016 📍 Jeddah, Kingdom of Saudi Arabia

Central Board of Secondary Education

### Secondary Education

#### International Indian School

📅 2014 📍 Jeddah, Kingdom of Saudi Arabia

Central Board of Secondary Education

## EXPERIENCE

### Summer Research Internship

#### The University of Kiel

📅 June 2019 – August 2019 📍 Kiel, Germany

- Artificial Neural Networks and its applications in Geo-mechanics
- Analytical ANN was used for predicting different properties of sands and rocks. For example like Thermal conductivity of sand based on porosity and saturation and seismic wave velocities of rocks using different chemical compositions

### Student Partner

#### Bolt IoT

📅 May 2019 – July 2019 📍 Aligarh, Uttar Pradesh

- The tasks undertaken by me were to popularize the concepts of Internet of Things (IoT) and Machine Learning (ML), brand awareness and business development of the Bolt IoT and ML online video training.

### Co Coordinator

#### Autonomous Underwater Club - ZHCET

📅 August 2018 – May 2019 📍 Aligarh, Uttar Pradesh

- Vehicle simulation in Gazebo Robotics Simulator
- Detailed studying and implementation of acoustic localization on the AUV
- Social media manager

### Summer Student Intern

#### Saudi White Cement

📅 June – July 2018 📍 Kingdom of Saudi Arabia

- Training of security systems in an industrial company
- Hands on Experience on ERP (Enterprise Resource Planning) - Oracle Describing Cash Flow, Inventory & other major modules used in a manufacturing company

## PROJECTS

### Camera Tuning AI using Deep Reinforcement Learning

#### Zakir Husain College of Engineering & Technology

📅 August - December 2018 📍 India

- Deep reinforcement learning implemented to tune white-balance settings of android camera - **Minor Project of Junior year**
- Trained using Keras library, image sent over to system using socket programming, and image extraction using CNN data set MobileNetV2

### Acoustic Localization on AUV's

#### Autonomous Underwater Vehicle Club

📅 January 2019 📍 India

Localization of a beacon underwater using an array of hydrophones attached on the vehicle. These hydrophones will be passed through a signal processing board and then the Time Difference Of Arrival (TDOA) is determined of the incoming signal. Accordingly the source is located and the Autonomous Vehicle is directed towards it

### Underwater Simulations of AUV's

#### Autonomous Underwater Vehicle Club

📅 March - On going 📍 India

AUV's can be simulated in realistic conditions by simulating it. For simulations we are using **Gazebo Simulator** along with **Robot Operating System** middleware software. ROS helps in combining different independent nodes, which are different components of the robots, on one platform and controlling it.

## RESEARCH

Effective thermal conductivity of unsaturated sand using artificial neural network (ANN) and lattice element method (LEM)

**International Journal of Thermal Sciences**

📅 September 2019

- Project: GeoMInt - Geomechanical integrity of host and barrier rocks - experiment, modeling and analysis of discontinuities  
**Authors:** Zarghaam Haider Rizvi, Husain Haider Zaidi, Syed Jawad Akhtar, Amir Shoarian Sattari, Frank Wuttke

Estimation of seismic wave velocities of crustal metamorphic rocks using ANN

**Materials today: Proceedings**

📅 April 2020

- Project: GeoMInt - Geomechanical integrity of host and barrier rocks - experiment, modeling and analysis of discontinuities  
**Authors:** Zarghaam Haider Rizvi, Syed Jawad Akhtar, Jorg Follmann, Frank Wuttke

Effective thermal conductivity of unsaturated soils based on deep learning algorithm

**2nd International Conference on Energy Geotechnics**

📅 September 2020

📍 La Jolla, California

- Project: BioSolidEncap - Stabilisation of Tailing slopes by controlled Bio-cementation  
**Authors:** Zarghaam Haider Rizvi, Syed Jawad Akhtar, Wurood Sabeeh, Frank Wuttke

## PATENTS

**A low cost Autonomous Underwater Vehicle having five degrees of freedom and two thrusters**

📅 March 2018

📍 United States

- U.S. Patent Filing No. **15949553**

**6 Pin Underwater Electrical Connector**

📅 July 2018

📍 India

- Indian Patent Application No. **201811027144**
- **Published**

## SKILLS

Robot Operating System

Gazebo Robotic Simulator

Google Sketch Up

Simulink

Labview

Android Studio

LaTeX

Photoshop CS6

Premiere CS6

Audition CS6

## ACHIEVEMENTS



**Students Autonomous Underwater Vehicle Competition 2019**

Overall 4th position of the team nationwide - was in the computer team



**Singapore AUV Challenge 2018**

Lead the team and reached the preliminary round



**Co - Founder of AUV ZHCET Club**

One of the founding members of the technical club in the college



**Top 4 Idea Presentation**

on AUV Surveillance at Riyadh Inspiring Entrepreneurs Summit 2018



**1st Prize in Mobile app Mock up competition by IEEE**

Made an app for foodies and food makers ranging from professional chefs to moms to share recipes - The Food Up app



**School Topper in Computer Science subject**

In Senior secondary school, bagged the first position at school level by scoring 96 % in Computer Science



**HackDTU Hackathon**

Showcased and implemented an online Car Parking system

## STUDENT MEMBERSHIPS

IEEE Oceanic Engineering

**Zakir Husain College of Engineering & Technology**

📅 March 2019

📍 India

Marine Technology Society

**Zakir Husain College of Engineering & Technology**

📅 April 2020

📍 India

## CO-CURRICULAR



**Organizer at blood donation campaign**



**Official Photographer of hall festival**



**First prize in photography competition in hall festival**

## WORKSHOPS/CONFERENCES

---

- NoSQL, Bigdata & Artificial Intelligence Conference by Datumcom
  - UAV's and Drones
  - Android Web Development and Web Designing
- 

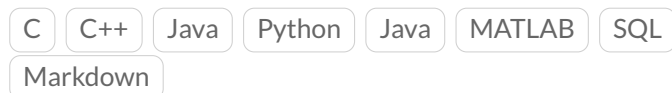
## LEARNING

---

- **Programming for Robotics - ROS** - By Institute of Robotics and Intelligent Systems, Robotics Systems Lab, ETH Zurich (Dec. 2018)
- **Deep Learning A-Z™** - Hands on Artificial Neural Networks Proficiency course on Python on Udemey
- **Data Analysis and Machine Learning using Python** - By Dept. of Mechanical Engineering, Zakir Husain College of Engineering and Technology (Jan. 2019)

## LANGUAGES

---



## REFERENCES

---

**Prof. Dr.-ing habil. Frank Wuttke**

**Chair of Geomechanics and Geotechnics**

@ Institute of Applied Science

✉ fw@gpi.uni-kiel.de

Institute of Applied GeoScience  
The University of Kiel  
Kiel-24118, GERMANY

---

**Dr. Saleem Anwar Khan**

**Associate Professor**

@ Zakir Husain College of Engineering & Technology

✉ saleemanwar@zhcet.ac.in

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

---

**Dr. Rashid Ali**

**Associate Professor**

@ Zakir Husain College of Engineering & Technology

✉ rashidaliamu@rediffmail.com

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