**Personal Introduction**

Muhammad Ali  
Electronics Engineer  
Date of Birth: 30th November 1998

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*●* [facebook.com/vspace.x](https://web.facebook.com/vspace.x)  
*●* [instagram.com/m\_\_a.l.i/](https://www.instagram.com/m__a.l.i/)  
*●* [twitter.com/M\_\_\_\_\_\_\_\_\_Ali](https://twitter.com/M_________Ali)

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*●* [facebook.com/YourWritingss](https://web.facebook.com/YourWritingss)  
*●* [instagram.com/ali\_writes\_arts](https://www.instagram.com/ali_writes_arts/)**)**

**Education**

**• School**▪ Fazaia Degree College, MRF, Kamra  
▪ Percentage: 95.23 %  
▪ Marks: 1000/1050  
▪ 25/03/2013 – 27/03/2015  
▪ 25-Mar-2013 – 27-Mar-2015  
▪ Field of Study: Science/Pre-engineering▪ (04/25/2013 – 03/27/2015)  
▪ Education Level: Secondary School Certificate / School  
▪ Degree: Matric  
▪ Degree Level: Matriculation  
▪ Title: School: Science  
▪ Website: fazaia.edu.pk/fdcmrf

**• College**▪ Fazaia Degree College, Risalpur   
▪ Percentage: 83%  
▪ Total Marks: 913/1100  
▪ 13/07/2015 – 26/05/2017  
▪ 13-July-2015 – 26-May-2017  
▪ Field of Study: Pre-engineering  
▪ (06/13/2015 – 05/25/2017)  
▪ Education Level: Higher Secondary School / High School  
▪ Degree: FSC  
▪ Degree Level: Intermediate  
▪ Title: College: Pre-engineering  
▪ Website: fazaia.edu.pk/fdcrisalpur

**• University**  
▪ Pakistan Institute of Engineering and Applied Sciences (PIEAS)  
▪ Title: B.S. Electronics Engineering   
▪ Major: Electronics Engineering  
▪ Bachelor of Science (BS)  
▪ Current CGPA: 3.74/4.00  
▪ 10/09/2018 – 13/06/2022  
▪ 10-Sep-2018 – 13-Jun-2022  
▪ (09/10/2018 --- 06/13/2022)  
▪ Degree: BS (Hons)  
▪ Degree Level: Bachelors   
▪ Website: pieas.edu.pk  
▪ Total Credits: 137  
▪ Address: PIEAS University, Lehtrar Road, Nilore 45650, Islamabad Capital Territory, Pakistan  
▪ Postal Code: 45650  
▪ College Code: 999073  
▪ College: Department of Electrical Engineering  
▪ University ranked 2nd in Pakistan (According to QS world ranking)  
▪ Thesis: Implementation of deep learning control for a Quadcopter

**Projects**

**•** Implementation of deep learning control for Quadcopter  
**•** Two-wheel self-balancing robot **•** Maze Solver Robot  
**•** Line follower robot  
**•** Android P2P messaging App  
**•** Trained Reinforcement Learning agent for autonomous driving  
**•** Reinforcement Learning for Atari Breakout Game  
**•** Trained Neural Network for Image prediction  
**•** Training CartPole to balance itself  
**•** Tic-tac-toe game using a C++ programming language  
**•** Designed a 1kVA UPS powered by a single-phase 220V/50Hz AC.  
**•** Designed 8-bit SAR ADC  
**•** Designed and implemented a stepper motor controller  
**•** 35% Duty Cycle Rectangular Waveform using Astable Multivibrator (555 Timer)  
**•** Detection of cracks in Ceramic Tiles using Digital Image Processing **•** Designed a filter  
 ▪ that removes cross-over distortion from class B push-pull amplifier  
 ▪ that minimizes noise coming from a tape recorder.  
 ▪ for a car alternator.

**•** Implementation of deep learning control for Quadcopter  
 Video : [*https://youtu.be/aDtnSoSor4E*](https://youtu.be/aDtnSoSor4E)**•** Two-wheel self-balancing robot  
Report:[*https://bit.ly/3I8uKrR*](https://bit.ly/3I8uKrR)Certificate:[*https://bit.ly/3IcEiBP*](https://bit.ly/3IcEiBP)**•** Maze Solver Robot  
 Video : [*https://youtu.be/NtWT8aEdATg*](https://youtu.be/NtWT8aEdATg)**•** Line follower robot  
 Certificate: [*https://bit.ly/35OvHZg*](https://bit.ly/35OvHZg)**•** Android P2P messaging App  
 Video: [*https://youtu.be/wOFHmuyRXFY*](https://youtu.be/wOFHmuyRXFY) Report:[*https://bit.ly/3KHV5yi*](https://bit.ly/3KHV5yi)**•** Trained Reinforcement Learning agent for autonomous driving  
 Code : [*https://bit.ly/38nxtln*](https://bit.ly/38nxtln)**•** Reinforcement Learning for Atari Breakout Game  
 Code : [*https://bit.ly/3wqR8Zz*](https://bit.ly/3wqR8Zz)**•** Trained Neural Network for Image prediction  
 Video : [*https://bit.ly/3lek8P8*](https://bit.ly/3lek8P8)**•** Training CartPole to balance itself  
 Code : [*https://bit.ly/3sAKyyG*](https://bit.ly/3sAKyyG)**•** Tic-tac-toe game using a C++ programming language  
 Report:[*https://bit.ly/3i1Hw0m*](https://bit.ly/3i1Hw0m)**•** Designed a 1kVA UPS powered by a single-phase 220V/50Hz AC.  
 Report: [*https://bit.ly/3MNBlv0*](https://bit.ly/3MNBlv0)**•** Designed 8-bit SAR ADC  
 Report: [*https://bit.ly/36cbv3a*](https://bit.ly/36cbv3a)**•** Designed and implemented a stepper motor controller  
 Report: [*https://bit.ly/3hZQoUu*](https://bit.ly/3hZQoUu)**•** 35% Duty Cycle Rectangular Waveform using Astable Multivibrator (555 Timer)  
 Report: [*https://bit.ly/3tglw8N*](https://bit.ly/3tglw8N)**•** Detection of cracks in Ceramic Tiles using Digital Image Processing  
 Report: [*https://bit.ly/3tSHDRx*](https://bit.ly/3tSHDRx)**•** Designed a filter  
 ▪ that removes cross-over distortion from class B push-pull amplifier  
 ▪ that minimizes noise coming from a tape recorder.  
 ▪ for a car alternator.  
 Report: [*https://bit.ly/3KCyHXh*](https://bit.ly/3KCyHXh)

**Experience**

Title: **Two-wheel self-balancing robot**

Employment type: **Internship**

Company name: **National Institute of Electronics (NIE), Islamabad**

Location: **Islamabad, Pakistan**

Start Date: **02-08-2021 , 08/02/2021, 02-Aug-2021**

End Date: **24-09-2021 , 09/24/2021, 24-Sep-2021**

Industry: **Electronics Industry**

**Address:**Plot # 17, Street # 6, Sector H-9/1 Islamabad, Pakistan

Description

National Institute of Electronics (NIE), located in the heart of the capital of Pakistan, is the national and leading research institution in the field of electronics. It is an autonomous research institution that comes under the administrative control of Pakistan's Ministry of Science and Technology.

National Institute of Electronics (NIE), Islamabad

NIE is a leading research institution in the field of electronics, where I made a two-wheel self-balancing robot.

2-Title: **Vice-president IEEE Robotics PIEAS Student Branch**

Employment Type: **Part-Time**

Company name: **IEEE Robotics PIEAS Student Branch/** **IEEE Islamabad Section**

Location: **PIEAS University, Islamabad, Pakistan**

Start Date: **20-09-2021 , 09/20/2021, 20-Sep-2021**

End Date: *16-05-2022, 16-May-2022*

Industry: **Institute of Electrical and Electronics Engineers**

Description:

IEEE PIEAS Student Branch is a society that makes students aware of the advances in the field of electronics being made around the world. It also develops a deep insight of students regarding the latest work in the field of electronics and encourages them to begin research work on their own. IEEE PIEAS Student Branch manages the technical work regarding electronics in PIEAS.IEEE Robotics is one of the domains of the IEEE PIEAS Student Branch.

Responsibilities:

Managing the team and arranging seminars and workshops on Robotics.

My responsibilities were to arrange seminars and workshops on Robotics

**Leadership**

2- Title: **Head Design Team at PIEAS Literary Society**

Employment Type: **Part-Time**

Company name:**PIEAS Literary Society**

Location: **PIEAS University, Islamabad, Pakistan**

Start Date: **18-01-2021, 01/18/2021, 18-Jan-2021**

End Date: **26-05-2021, 05/26/2021, 26-May-2021**

Industry: **Literature/ Graphic Designing**

Description

PIEAS literary society (PLS) is one of the most active societies of the institute, with many literary successes to its credit. The aim of PLS is to promote literature enthusiasm, make the students fit for the future time and to develop a sense of competitive spirit, cooperation, leadership, diligence, punctuality, team spirit as well as to provide a backdrop for the development of their creative talents.

Responsibilities:

Heading a team responsible for dealing with graphic designing, making posters, templates etc.

3- Title: **Head Videography at** **NGO Muaawin**

Employment Type: **Part-Time**

Company name: **NGO Muaawin**

Location: **Islamabad, Pakistan**

Start Date: **28-01-2021, 01/28/2021, 28-Jan-2021**

End Date: **29-06-2021, 06/29/2021, 29-Jun-2021**

Industry: **Philanthropic Non-Governmental Organization / Videography**

Description

Muaawin means “helper”. Muaawin is a charitable organization that provides materials and financial support to poor students. Its primary goal is to help children remain in school so that their talent and skills don’t waste because of the financial crisis and poverty. It also provides free medical facilities to deserving people specifically to the ones who can’t afford basic healthcare treatments. Its goal is to engage the youth in some useful and productive tasks so that they can take part in the betterment of Pakistan.

Responsibilities:

Heading a team responsible for dealing with videography and covering the events.

4- Title: **Co-Director Videography** **PIEAS Media Club**

Employment Type: **Part-Time**

Company name: **PIEAS Media Club**

Location: **PIEAS University, Islamabad, Pakistan**

Start Date: **24-11-2020, 11/24/2020, 24-Nov-2020**

End Date: **13-04-2021, 04/13/2021, 13-Apr-2021**

Industry: **Videography**

Description:

PIEAS Media Club is one of the most active societies of PIEAS university. It covers every event that is held in the university. It has three main domains i.e., videography, photography, and graphic designing.

Responsibilities:

Teaching video-editing to the videography team of PIEAS Media Club

5- Title: **Inquiry Team Member at NGO Muaawin-e-Rozgaar**

Employment Type: **Part-Time**

Company name: **NGO Muaawin-e-Rozgaar**

Location: **Islamabad, Pakistan**

Start Date: **21-12-2020, 12/21/2020, 21-Dec-2020**

End Date: **26-07-2021, 07/26/2021, 26-Jul-2021**

Industry: **Philanthropic Non-Governmental Organization**

Description:

Muaawin-e-Rozgaar is a non-profit Non-Governmental Organization that helps underprivileged people of the society to set up their small own businesses, their own source of income by providing them non-interest loans, buying them equipment, and assisting them throughout the initial phase of business.

Responsibilities:

Inquiring underprivileged people whether they are eligible for donations or not.

6- Title: **Head videography at IEEE’s ISYWSC event**

Employment Type: **Part-Time**

Company name: **IEEE PIEAS Student Branch ,** **IEEE Islamabad Section**

Location: **PIEAS University, Islamabad, Pakistan**

Start Date: **24-11-2021, 11/24/2021, 24-Nov-2021**

End Date: **15-12-2021, 12/15/2021, 15-Dec-2021**

Industry: **Videography**

Description:

IEEE Islamabad Section Students/YP/WIE/SIGHT Congress (ISYWSC) is a national event that is hosted by the winning university. Our university hosted it many times. It is one of the biggest events of IEEE in Pakistan where Students, Young Professionals (YP), Women in Engineering (WIE), and the Special Interest Group on Humanitarian Technology (SIGHT) come together. There are seminars, sessions, fun activities, cultural nights, etc. at the event.

Responsibilities:

Managing a team responsible for covering the event and making a video of the event.

7- Title: **Head videography at PIEAS National Olympiad**

Employment Type: **Part-Time**

Company name: **PIEAS National Olympiad,** **PIEAS University**

Location: **PIEAS University, Islamabad, Pakistan**

Start Date: **12-12-2021, 12/12/2021, 12-Dec-2021**

End Date: **03-01-2022, 01/03/2022, 03-Jan-2022**

Industry: **Videography**

Description:

It is the signature mega event of PIEAS that is organized by all the societies of PIEAS. It is a three-day event full of technical, non-technical, sports, and e-sports modules. PIEAS National Olympiad is one of the biggest events of the twin cities (Islamabad and Rawalpindi). The event is a collaborative effort of all the societies at PIEAS with modules ranging from sports like futsal and table tennis to every category of fine arts, including music, painting, writing, and speeches.

Responsibilities:

Managing a team responsible for covering the event and making a video of the event.

8- Title: **Organizing member at International Workshop on 2D and Quantum Effect Devices**

Employment Type: **Part-Time**

Company name: **International Workshop on 2D and Quantum Effect Devices, PIEAS University**

Location: **PIEAS University, Islamabad, Pakistan**

Start Date: **12-11-2018, 11/12/2018, 12-Nov-2018**

End Date: **14-11-2018, 11/14/2018, 14-Nov-2018**

Industry: **2D and Quantum Mechanics Workshop**

Description:

It is an international workshop that is held at PIEAS university every year. Delegates from countries like the UK, Japan, China, etc. visit PIEAS for research purposes.

Responsibilities:

Receiving International guests from countries like the UK, Japan, China, etc., and assisting them during their stay in Pakistan.

**Certifications**

1-School: Great Learning Academy

Title: Java Language / Programming

Start Date: 02-11-2021, 02-Nov-2021

Date: 14-12-2020, 14-Dec-2020

2-School: Fazaia Degree College, MRF, Kamra

Title: International Kangaroo Mathematics Contest 2011

Date: 17-03-2011, 17-Mar-2011

Area of Study: Mathematics

3-School: Pakistan Institute of Engineering & Applied Sciences (PIEAS)

Title: Member Team Management, PIEAS National Olympiad

Start date: 15-11-2019, 15-Nov-2019

End date: 20-11-2019, 20-Nov-2019

4-School: Pakistan Institute of Engineering & Applied Sciences (PIEAS)

Title: Football team runner-up, PIEAS Sportic Society

Date: 27-10-2021, 27-Oct-2021

5- Web development, React/JavaScript/CSS/Tailwind CSS/ HTML

Start date: 18-Apr-2022

End date: 27-Jun-2022

**Skills**

**React/ Web Development**

**• Programming Languages**  
 C++, Python, C, CSS, HTML, JavaScript, and Java

**• Integrated Development Environments (IDEs)**  
 Visual Studio, Android Studio, Arduino, Gazebo simulator, GymFC,  
 MATLAB/Simulink, Autodesk Inventor, Creo Parametric, LTspice,  
 MobotSim, ModelSim, Xilinx ISE, Keil, Virtual box (Linux/Ubuntu)

**• Media**  
 Graphics Designing; Animation; Video, Photo, and Voice Editing

**• Practical Work**  
 PCB Designing, Metalworks (lathe Machine, Wielding, etc.),  
 Veroboard usage/Soldering, Wood Works

**• Soft Skills** Teamwork, leadership, self-management, time-management,  
 responsibility, Adaptability

**• Other**  
 Blog writing, Thoughts illustration, MS Office

**Languages**  
Urdu (5/5)  
English (4/5)  
Pushto (5/5)  
Hindi (4/5)  
Punjabi (2/5)

**Hobbies**

1- Blog writing  
2- Thoughts illustration  
3- Video Editing  
4- Hiking  
5- Social Media  
6- Badminton  
7- Jogging