

Mudassir Maqsood Khan

CONTROL SYSTEM ENGINEER PROFILE:

- Experienced in Allen Bradley, Studio 5000, Factory Talk View Studio and RS Logix as a Control Systems Engineer, including experience in system integration, testing and commissioning activities of the PLC-based Management Control Systems for \$7.2 billion **M4-M5 WestConnex Tunnel**.
- High proficiency in control systems and automation, circuit designing and coding and PID. Familiarized with GE Proficy Historians Software and Proficy Plant Applications.
- Experienced in Allen Bradley, Yokogawa DCS, TIA Portal, and HMI as a Graduate Mechatronics Engineer for the maintenance of CGPF/GPF Oil and Gas Plant at **Makori Plant Karak**, Pakistan.
- Delivered major projects as part of bachelor's degree including Fully Automated Solar Panel Cleaning Robot – DetergeoBot Patent with manual. Designed an indigenous robot and its mechanism of ball potting of different colors for NERC NUST. Developed an IoT-based device for the safety precautions of parents, informing them about the vehicle's current location if their kids exceed a specific limit while driving. Led the team in Hackathon CEME NUST 2018 with the above idea and succeeded in grabbing the best pitch award.

KEY ENGINEERING SKILLS:

- **Programming:** Experience in PLC programming for Rockwell Studio 5000 and Siemens S7 using IEC 61131-3 languages (ladder, structured text & SFC).
- **Commissioning:** Testing and commissioning of 9000 assets in the WestConnex tunnel and taking part in Factory Acceptance Tests, Site Acceptance Tests and Site Commissioning activities for OMCS and IOMCS.
- **AutoCAD:** Experience in AutoCAD to create detailed technical drawings developed in my role at TechTis Solutions.
- **Matlab/Cadence:** Implemented EKF using MATLAB to efficiently convert a non-linearized system to a linearized system to any mechanical or electrical energy-based system.
- **Circuit design:** Designed H Bridges for the motors of three robots using Pspice and designed the whole body of robot using AutoCad and SolidWorks (Bachelor's Project).
- **Software Skills:** Proficient in C/C++ programming, LabVIEW MS Office Suite, and Electrical Cad.
- **Team Player:** Effective team player, capable of collaborating and negotiating tasks demonstrated from working at Coengineer and TechTis Solutions.
- **Multitasking:** Strong multitasking skills to effectively organize and prioritize tasks acquired by successfully completing projects.
- **Problem Solving:** Accurate and prompt problem solving skills to resolve team member's queries demonstrated whilst working as a Level 5-6 Test Engineer at Coengineer.
- **Communication:** Effective verbal and non-verbal communication skills gained through liaising with Clients on aspects of specifications, technical information, datasheets, and quotations.
- **Leadership:** Strong leadership skills demonstrated through efficiently managing a team of up to three as well as providing training and support at Coengineer.

QUALIFICATIONS:

- **Master of Engineering in Mechanical Engineering** – University of Wollongong 2024
- **Bachelor of Engineering in Mechatronics Engineering** – National University of Sciences and Technology 2019

EMPLOYMENT HISTORY:

CONTROL SYSTEM ENGINEER

February 2022— Present

COENGINEER, SYDNEY, AUSTRALIA

Responsibilities:

- SAT/SIT testing a wide range of field equipment including Fans, Dampers, Distribution boards & Multiple types of Instruments and liaising with Electricians/Other Teams.
- Supervising the installation and commissioning of the control systems and their integration on SCADA and ensuring proper control and protection methods
- Managed work associated with lighting fixtures, low voltage power equipment, circuit-breaker panels, ventilation fans, and associated automatic transfer switches.
- Developed the method of procedures for electrical work to be performed while all critical loads and essential panels were energized.
- Collaborated with other managers, supervisors and team leads to ensure adherence to proposed delivery schedules and to implement improvement processes during Level 5 & 6 Test.
- Liaison between technicians and engineers. Submitting as-builds to engineering and tracking updated plans.
- Act as direct point of contact for both subcontractors and client; provided updates daily via Atlassian.

GRADUATE MECHATRONICS ENGINEER

AUGUST 2019— DECEMBER 2021

TECHTIS SOLUTIONS, ISLAMABAD, PAKISTAN

Responsibilities:

- I worked on Allen Bradley, Studio 5000, Factory Talk View Studio, and RS Logix, along with experience in system integration, testing, and commissioning activities of the PLC-based Plant Management Control Systems of Manzalai Central Gas Processing Facility.
- DCS Honeywell Experion, Yokogawa Centum CS300, HIMA H51Q PLC and ELOP II for ESD as a Graduate Trainee Engineer, including experience in documenting and testing the PLC logic and HMI applications
- Supervising the installation and maintenance of the control systems PLC's during the annual maintenance.
- Developing procedures and test documentation to test electronic components, circuits, and systems.
- I created and modified 3D models on Solidworks/OpenPlant, providing FEA analysis on ANSYS/AutoPipe.
- I offered an optimized design using the FEA analysis and performed design calculations, determined the equipment/ material specifications, and met time and cost budgets following the ASME/ASTM Standards provided by the organization
- I created the project scope and deliverables and provided technical support to the engineering team.

ACHIEVEMENTS:

- GPA Merit Scholarship for Bachelor of Mechatronics Engineering at NUST.
- Received the prestigious NCRA and Koh-i-Noor Textile Mills R&D Fund for the Final Year Project.
- Winner of the National Engineering Robotics Contest 2018.
- Best Pitch Award for Hackathon 2017 NUST.

LICENSES AND ACCREDITATION:

- Washington Accord Accredited
- MS Office Specialist Certification
- Construction White Card (Australia)

REFEREES

- Available upon request.