europass

Suraksha Shantharam Nadig

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EDUCATION AND TRAINING

17/10/2022 Stuttgart, Germany
MASTER OF SCIENCE University of Stuttgart

Major in Smart systems

Field of study Electrical Engineering

31/07/2016 – 30/07/2020 India
BACHELOR OF ENGINEERING Visvesvaraya Technological University

Field of study Electronics and Instrumentation | **Final grade** 8.11 CGPA

DIGITAL SKILLS

C | Python | C++ | MATLAB | Git | Digital Signal Processing (DSP) | Deep Learning, | Detection and Pattern Recognition | Communication protocols (MODBUS MQTT CAN PROFIBUS) | Kubernetes | Docker | Visual Studio (Visual Basic) | Microsoft Office (Outlook, Excel, Word, PowerPoint) | BASH Scripting | Industrial Automation | Yokogawa Centum VP R6 Distributed Control Systems (DCS) | HTML | Switch configuration

WORK EXPERIENCE

01/2023 – CURRENT Stuttgart, Germany
STUDENT RESEARCH ASSISTANT UNIVERSITY OF STUTTGART

Cloud Based Control Technology

Roles and Responsibilities:
• Implementation of Cloud-based Control technology with orchestration tools such as Kubernetes
• Connection of real machines from the machine factory of the institute to an on-premise cloud infrastructure
• Real-time programming in C
Tools & software: Kubernetes, Docker, Visual Studio, React
Skills Acquired: C, C#, Git, React, Kubernetes, Industry 4.0, Containerisation, Virtualisation

16/05/2021 – 02/09/2022 Bangalore, India
SYSTEMS ENGINEER YOKOGAWA INDIA LTD.

Designing control logics and SCADA for Distributed Control Systems (DCS).

Roles & Responsibilities:
1) Application development for Process Automation of Power Plants using Yokogawa Distributed control system.
2) Organizing Factory acceptance test (FAT) at Yokogawa factories.
3) Design control for various Industrial sensors and actuators.
3) Development of Plant Graphics (SCADA) for HMI for various processes.
Training:
1) Centum VP - Yokogawa's DCS system.
2) Prosafe RS - Yokogawa's safety system.
Award & Appreciation:
Award of Appreciation in the organization for Finolex power plant project for timely execution.

07/2019 – 08/2019 Bangalore, India
INTERN DEFENCE RESEARCH AND DEVELOPMENT ORGANISATION

ADCs and generation of RADAR waveforms using MATLAB

Tools & software: MATLAB
Skills Acquired: Understanding of different types of RADARs, Presentation.

01/2019 – 02/2019
INTERN SIEMENS RAIL AUTOMATION PVT. LTD.

Electronic Interlocking for Railway Signaling System
Tools & software: Theoretical knowledge gained by understanding the working of Siemens In-house tools for design, configuration, installation, simulation and testing.
Skills Acquired: Working knowledge on Rail Automation, Railway Signaling and Testing methods.

07/2018 – 08/2018 Bangalore, India
INTERN MEGAMIC ELECTRONICS

Wireless point to point Communication using PIC Microcontroller
Tools & software: MPLAB X IDE, Termite, MODBUS, ADC board-Load Cell, PICKIT programmer, Potentiometer
Skills Acquired: Basic C programming, Usage of Microcontroller, Introduced to UART communication

LANGUAGE SKILLS

Other language(s): **ENGLISH(FLUENT), GERMAN(A2)**

ADDITIONAL INFORMATION

PUBLICATIONS

Power Charging Unit using Rotary Leverage System – 2020

International Journal of Engineering Research & Technology (IJERT) Vol. 9 Issue 05, May-2020

Review on Power Charging Unit using Rotary Leverage System – 2019

International Research Journal of Engineering and Technology (IRJET), Vol: 06 Issue: 11 |Nov 2019

PROJECTS

31/03/2019 – 30/04/2019
SMART RICE COOKER This system is designed to automate the process of cooking rice. The required quantity of rice can be selected from the panel and the cooker automatically estimates the quantity of water required to cook rice, and dispenses the same into the cooking vessel. The system is built using a load cell, a motor and an Arduino controller.

31/01/2020 – 30/06/2020
ENERGY EFFICIENT POWER CHARGING UNIT USING ROTARY LEVERAGE SYSTEM The system stores mechanical energy of a rotational leverage using a flywheel storage system. This stored energy is utilized using a generator. An AC generator is mechanically coupled through the gear system to receive kinetic energy stored in the flywheel as input. AC generator produces AC output voltage or AC power at its output and that can be used for charging.

Contributions in designing sustainable energy solution:
- Optimizing the flywheel by implementing regenerative braking and a variable speed drive
- Incorporating Intelligent energy management
- Integrated energy recovery mechanisms, and conducted system monitoring and optimization.

HOBBIES AND INTERESTS

Keyboardist and Vocalist Trained in Indian and Western style music.