Mahesh Ganesh Bhat

Experience

Master Thesis , Huawei Munich Research Center, Munich

MAY 2022 — APRIL 2023

Title: Investigation and Comparison of Network Management Protocols for Industrial Networks

- Grade - 1.3
- Develop prototype implementation of complete RESTCONF and CORECONF stack in C using standard GNU libraries
- A comparative study of configuration management protocols in Industry 4.0, namely NETCONF, RESTCONF, and CORECONF

Work Student, Huawei Munich Research Center, Munich

NOVEMBER 2021 — APRIL 2022

- Integrated the existing Docker-based proxy solution for a Time-Sensitive Networking switch for device management demo setup

Work Student, Fraunhofer AISEC, Munich

FEBRUARY 2021 — MARCH 2021

- Investigate the integration of Fraunhofer's Trustme Distro onto NVIDIA Jetson boards

Intern, Fraunhofer AISEC, Munich

NOVEMBER 2020 — JANUARY 2021

- Integration of CUDA modules into a custom yocto-based Linux kernel
- Created containerized solution for CUDA applications with relevant access rights for memory isolation

Work Student: Junior Embedded Systems Engineer, Motius GmbH, Munich

OCTOBER 2019 — FEBRUARY 2020

Worked on different protocols for inter-vehicle communication

- Implemented modules for MQTT, AMQP, and DDS
- Developed an integrated test suite based on the use cases

Education

Master of Science in Communications Engineering, The Technical University of Munich, Munich

OCTOBER 2018 — JUNE 2023

- **Subjects**: Embedded systems and Security, Project lab Secure SoC for IoT (AES-GCM), Physical Unclonable Functions, Advanced Cryptographic Implementation, Quantum Computing, and Quantum Secure Communication, Project Praktikum Smart Card Lab
- **Seminar:** A Study of Different Horizontal and Single Trace Side-Channel Attacks on Post-Quantum Cryptographic Algorithms

Details

55, 1st Cross, Bhuvaneshwari Nagar,
Bangalore, 560057, India
Phone: +91 9035732962
Email:

Skills

C Programming

C++ Programming

Python

Assembly Language

VHDL

Linux

Embedded Systems

Embedded C

Contiki-NG OS for IoT

Cryptography

Keras

Docker

Yocto

Security for Embedded Security

Time-Sensitive Networking

Languages

English

Kannada

Hindi

Tamil

Telugu

Hobbies

Playing Chess, Reading Books

Links

Linkedin

Bachelor of Engineering in Electronics and Communications, The National Institute of Engineering, Mysuru

AUGUST 2014 — JUNE 2018

CGPA - 9/10

- **Seminar**: Event-Triggered Model Predictive Analysis for Artificial Pancreas Control
- Class A - Variable Modulation Index AM Generator

Projects

Undergraduate project - HERMES, Mysuru

OCTOBER 2017 — MAY 2018

The current model in design is aimed to enable faster data transmission compared to the existing models by making use of visible light spectrum and various data encoding methods.

Resistive Touch Screen Controlled Wheelchair, Mysuru

NOVEMBER 2016 — JANUARY 2017

The goal of this project was to ease the use of wheelchairs by utilizing the touch-based system for control. Integrated Resistive Touch Screen to Arduino to control the motor function

Extra-curricular activities

Hub Lead,Mysuru at IEEE Bangalore SAC

FEBRUARY 2017 — DECEMBER 2017

Chairperson IEEE Spark

NOVEMBER 2016

Student Activities and Communications coordinator and Treasurer at NIE IEEE Student Branch

AUGUST 2015 — JUNE 2016

Courses

Fundamentals of Computer Network Security Specialization, Coursera

Applied Cryptography Specialization, Coursera

Introduction to Applied Cryptography Specialization, Coursera

Publications

Ganesh Bhat, Mahesh; Bhattacharjee, Sushmit; Gündoğan, Cenk; Alexandris, Konstantinos; Gogolev, Alexander (2023). "***CORECONF, NETCONF, and RESTCONF: Benchmarking Network Orchestration in Constrained IIoT devices***". IEEE IoT Journal. **Submitted***

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