

# SEBASTIAN THOMAS THEKKEKARA

## MASTER GRADUATE - POWER ENGINEERING

✉ sebastn.t@outlook.com  
in sebastn

🌐 sebastiant.co  
🔗 sebastn

📍 Munich, Germany



### 📁 EXPERIENCE

#### 🏠 Antler Founders' Program

Apr 2021 - Jul 2021

- Headed the tech-development of 7 hobby projects, developed 1 hardware product prototype, deployed 3 websites, and 4 low code applications
- Led 3 brainstorming sessions & came up with innovative ideas as a team and analyzed the technical feasibilities of the ideas
- Through 9 workshops, attained an understanding of business models, marketing, user research and similar non technical aspects

#### ✂ Werkstudent at Kinexon GmbH

Nov 2018 - Mar 2021

- Headed the prototyping, development and testing of Sensorless Asset Tracking (SAT) product hardware
- Identified 2 critical short-comings of a sensor with respect to the customer requirement and helped the team to make a design change before going into mass production
- Conducted biweekly release tests with firmware and Robotics (AGV) teams and kept track of the feature additions and bugs
- Developed 3 Arduino based systems and prototypes for in-house testing

#### 🔧 Embedded System and IoT Intern at Motius GmbH

Sep 2018 - Dec 2018

- Researched the market, analysed competitor products & prepared a feature list for 'Sonnenglas 3.0' Project
- Designed, assembled and tested the first version of the hardware prototype
- Initiated and conducted an extensive research on sensor technologies as the only electrical engineer in the team and proposed the prospective sensors that could be used as per the requirements of Knorr Bremse

#### 🎓 Research Assistant at TU Munich

##### a. Chair of Geoinformatics - Geosensorweb and Internet of Things

Apr 2021 - Jul 2021

- Tutored & guided 3 students for the course and supervised them on the development of Seeeduino & Raspberry Pi based systems

##### b. Chair of Visual Computing Lab - Scan2Cad Project

Mar 2018 - Sep 2018

- Performed keypoint alignment of 3D object models to increase the accuracy & reliability of 3D object alignment

### 📖 EDUCATION

#### 🎓 Technical University Munich

TUM Skills Excellence Program  
Master of Science in Power Engineering (MSPE)

#### 🌐 Govt. Rajiv Gandhi Institute of Technology

B.Tech in Electrical and Electronics Engineering  
• Ranked 6th out of 1493 students

### 💡 PROJECTS & HACKATHONS

#### 1. Low Energy NOx Sensing Embedded System

Master Thesis, TUM

- Tech: Microchip, BLE, nRF52840 Dongle, Eagle PCB Desing, SMD Soldering, Reflow Oven

#### 2. Smart Helmet for live 3D distance measurement

BE5 Hackdays, OpenCV AI Finals

- Used Intel Realsense D435 stereo depth camera and Linux (Laptop/Raspberry Pi)

#### 3. Haptic Wristbands for indoor patient navigation

ER & D Hackathon

- Wristbands that vibrate & guide the patient according to the direction the patient should go
- Tech: Raspberry Pi, Arduino, RFID Reader/Tag

#### 4. RFID Based Real Time Indoor Tool Tracking System

Tech Challenge

- Tech: Raspberry Pi, Sparkfun Redboard, ESP8266, UHF RFID
- Brought together a team of 4 students of various expertise & led the team over the semester

#### 5. Advisor and Mentor

Delab Research, Alphageek

- Guiding and mentoring 2 early stage startups in India working on state-of-the-art technologies in IoT and machine learning
- Sharing my know-how of wireless technologies (RFID, UWB, WiFi, BLE, LoRaWAN) and the latest trends in IoT

### 🗣️ LANGUAGES

English IELTS 8.0  
German B2.2

### ❤️ INTERESTS

Prototyping    IoT    Automation  
Wireless Tech    Linux    Mentoring

### ✂ SKILLS

#### EMBEDDED SYSTEM

Raspberry Pi	●	●	●	●	●
Arduino	●	●	●	●	●
Soldering	●	●	●	●	●
Eagle	●	●	●	●	●
ESP32, ESP8266	●	●	●	●	●

#### PROGRAMMING

C/C++	●	●	●	●	●
Python	●	●	●	●	●
Node-RED	●	●	●	●	●
Git	●	●	●	●	●
Bash	●	●	●	●	●
Hugo	●	●	●	●	●

#### MISCELLANEOUS

MS Office	●	●	●	●	●
GSuite	●	●	●	●	●
Atlassian Suite	●	●	●	●	●
Adobe Illustrator	●	●	●	●	●
Adobe Indesign	●	●	●	●	●
Inventor	●	●	●	●	●

#### LINUX

CLI	●	●	●	●	●
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### 🎮 HOBBIES

Football	Design
Music	Gaming