

CURRICULUM VITAE

Selvasundari .B

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Work Experience: 5 years 7 month

AI - Engineer (Trainee)	November 2020 – Till now	Layorz Private Limited
Embedded Software Engineer	July 2017– September 2020	Chip Crafts Technology, Coimbatore
Embedded System Engineer	August 2015 – February 2017	Ewings Solution, Trichy

Education

- **Master of Engineering: *Communication System*** from ARJ College of Engineering and Technology, affiliated by ANNA University Chennai, Tamil Nadu, May 2016

Thesis title: e-nose for milk and meat quality assessment

- **Bachelor of Engineering: *Electronics and Communication Engineering*** from Einstein college of engineering, affiliated by ANNA University Chennai, Tamil Nadu, May 2014

Expertise

- Developing deep learning-based computer vision algorithms for robotic application
- Embedded system hardware and software design

Technical Skillset

- **Programing languages:** Python and Embedded C
 - **IDE:** Tensor flow, KEIL and Arduino IDE
 - **Protocol:** I2C, SPI, CAN and RS232
 - **Device Handled:** Arduino series, Atmel 8-bit microcontrollers and NXP LPC series microcontroller
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Project Experience

- **Panthera vision system (SUTD- ROAR lab):** Developed the Deep Learning enabled vision system for Panthera pavement sweeping robot
 - **Air filter monitoring system (Chip Craft):** Developed the embedded system-based air filter degradation tracking system for automobile application
 - **Electronic pedal (Chip Craft):** Developed the electronic pedal for automotive vehicle engine testbed using embedded system.
 - **Smart pump controller (Chip Craft):** Developing the low-cost real-time smart pump controller to farm field motor control with remote ON/OFF facility using SMS
 - **e-Nose (DST funded project & M.E Thesis):** Development of e-nose for milk and meat quality assessment using ATMEGA microcontroller
 - **Vehicle Tracking System (Ewings– Maytas Infra Ltd.):** Developed an embedded based Vehicle Tracking System using ATMEL microcontroller, ultrasonic sensing and MYFAIR RFID to monitor the vehicle trip in mines and stone crusher
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Peer Reviewed Publications

1. Balakrishnan Ramalingam, Abdullah A. Hayat, Mohan Rajesh Elara, Lim Yi, Thejus pathmakumar, Braulio Felix gomez, Selvasundari Balakrishnan and Madan Mohan Rayguru “Deep learning enabled self-reconfigurable robot for pavement defect and cleanliness inspection; **Submitted after minor revision: Sensors: SCI; IF:3.27**
2. Balakrishnan Ramalingam, Anirudh Krishna Lakshmanan, Mohan Rajesh Elara, Madan Mohan Rayguru, Selvasundari Balakrishnan, Abdullah A. Hayat; sTetro: Computer vision integrated autonomous robot for staircase maintenance; **Under Review : Journal of Building Engineering ; SCI; IF3.3**

References

Name	Dr. Mohan Rajesh Elara
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Address	EPD, Singapore University of Technology and Design
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Name	Dr. R. John Bosco Balaguru
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