

CURRICULUM VITAE

Sivasurya Santhanam

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Date of birth : 29.01.1992
Nationality : Indian
Marital status : Single



EDUCATIONAL DETAILS

September 2013 – Present **Hochschule Bonn-Rhein-Sieg (Germany) -**
Major : Autonomous systems (Dept. of Computer science)
Degree : Master of Science (M.Sc.)

August 2009 – April 2013 **Kongu engineering college (India)**
Major : Mechatronics engineering
Degree : Bachelor of Engineering (B.E)

May 2008 – March 2009 **AKT Academy Matriculation H.S.S (India)**
Higher secondary school

PROJECTS

October 2015 – Present **Master thesis – (Human robot communication):**
Emotion detection from German text by sentiment analysis

- Emotions are detected from the spoken text
- Uses Word2Vec and Doc2Vec models to preserve semantic similarity in sentences

May 2014 – January 2015 **Research and Development project – (Human robot communication):**
Automatic speech recognition evaluation system

- Toolkit to evaluate multiple speech recognition engines, developed in java with GUI
- Java packages are modular and extendable
- Source code and executable are available at <https://github.com/sivasuryas/asrEvaluationToolkit>

July 2012 – March 2013 **Bachelor thesis – (Designing and production):**
Design and analysis of planetary cover using FMEA & QFD

- Critical problem among the customer complaints is analyzed using quality control tools
- New fixture model is designed using modeling software for the planetary assembly problem

FIELD OF INTEREST

- ❖ Human Robot interaction – Speech recognition systems, Natural language processing
- ❖ Machine learning – Word2Vec and Doc2Vec models using deep learning
- ❖ Mobile robotics – Localization, Navigation, Mapping
- ❖ Robot manipulation – Kinematics, Frame transformations, OpenRAVE,
- ❖ Machine vision – Image reconstruction, Edge detection and segmentation algorithms

COURSE PROJECTS

- ❖ eDiViDe – VHDL programming in FPGA based wheeled robot to detect mines
- ❖ Machine vision – Face recognition using OpenCV tools and PCA
- ❖ Control system – Self balancing LEGO robot using PID controller

SKILL SETS

- ❖ Good programming knowledge in Java and Python
- ❖ GUI programming in Java (Swing)
- ❖ VHDL programming in FPGA
- ❖ Modelling and simulation using PTC Creo and ANSYS
- ❖ Flexible to work in Windows or Linux (Ubuntu)
- ❖ Documentation coding in LaTeX

ACHIEVEMENTS

- ❖ Graduated bachelor of engineering with distinction (2013)
- ❖ Received merit certificate in high school (2009)

LANGUAGES

- ❖ Tamil (fluent) – Mother tongue
- ❖ English (fluent)
- ❖ German (level B1)

HOBBIES

- ❖ Playing chess
- ❖ Cooking

Bonn, Germany.


(Sivasurya Santhanam)