

INDRAJA K. P.

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VLSI and Embedded Systems postgraduate who loves to solve problems and a quick learner. Seeking to leverage acquired academic knowledge and experience to solve real world problems. Technology enthusiast who is curious to learn new things and experiment with acquired knowledge.

EDUCATIONAL BACKGROUND

A.P.J Abdul Kalam Technological University (KTU)

Government Engineering College, Thrissur

M.Tech in VLSI and Embedded Systems

CGPA: 8.99

2021-2023

A.P.J Abdul Kalam Technological University (KTU)

Government Engineering College, Palakkad

B.Tech in Electronics and Communication

CGPA: 8.3

2017-2021

L.S.N.G.H.S.S Ottapalam (STATE BOARD)

SSLC and Higher Secondary Education

Higher Secondary Percentage: 83.33%

2015-2017

SSLC Education Percentage: 98.00%

2014-2015

EXPERIENCE

Machine Learning Intern

Internship Studio

July 2020-September 2020

Virtual Internship (6 weeks)

- Led a Project on "Marketing Campaign for Banking Products" based on Bank loans Classification and Analysis using different machine learning algorithms like Naïve Bayes Classifier, Logistic Regression, Neural Network, KNN classifier, Decision Tree and Random Forest Classifier with Yeo Johnson power transformation on the splitted data.
- Explored and visualized the data to gain an understanding of it and identified the differences in data distribution that could affect performance when deploying the model into the real world.

Keltron Intern

Thrissur, Kerala

June 2018-July 2018

- Internship on Microcontroller Programming, System Architecture Design, Design Optimization and Industrial Electronics.

SELECTED PROJECTS

Low Power Accuracy-Configurable RD4A-PPA based Hybrid Adder

- Designed a hybrid accuracy-configurable radix-4 adder (ACRA) by combining ACRA with PPA (parallel prefix adder), which uses the power gating technique to turn on or turn off the partial logic gates of an adder element dynamically to compute accurate or approximate results.
- Synthesis and simulation were done in Xilinx ISE and language used was Verilog HDL.
- FPGA used for the project was Artix-7.

Intravenous Drip Rate Monitoring and Controlling Device

- Developed an intravenous drip rate monitoring and controlling device using microcontroller with 2.4 Ghz Wi-Fi module which allows the doctors and nurses to monitor and control the IV infusion setup wirelessly.

Self-Balancing and Owner-Following Electric Bicycle

- Led a project on the development of self-balancing (using reaction wheel method) and owner-following electric bicycle. When it comes to balancing of cycle, PID algorithm-based program was used. In order to follow the owner, object following algorithm with an owner recognition method using IR was utilized.

Automatic railway gate control using Arduino and Ultrasonic sensors

PUBLICATIONS

Indraja K. P. and Roy Francis, "A Comparative Study of Radix-4 Adder and Accuracy-Configurable Radix-4 Adder," 2023 International Conference on Power, Instrumentation, Control and Computing (PICC).

TECHNICAL SKILLS

Languages : C, C++, Python, Verilog.

Libraries : Pandas, Numpy, Scikit-Learn, Matplotlib, Seaborn, OpenCV.

INTERPERSONAL SKILLS

Problem solving, Critical Thinking, Leadership, Presentation Skills, Time management.

LANGUAGES

Malayalam, English, Hindi.

ADDITIONAL INFORMATION

- Coordinator of Evolution Expo event of INVENTO 2020, annual multi-fest of GEC Palakkad.

