



KRUTANIC

A LADDER FOR BRIGHTER FUTURE



www.krutanic.com



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| Best Learning Platform

Transform Your Passion into
A Successful Career In Technology

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KNOW MORE



KRUTANIC
A LADDER FOR BRIGHTER FUTURE

We are now an **accredited partner**

under





TRAINING AND INTERNSHIP PROGRAM



About Us

"Krutanic is at the forefront of transforming education through cutting-edge technology. Our comprehensive platform empowers learners with personalized learning experiences, collaborative tools, and real-time analytics. With adaptive assessments and interactive content creation, we enhance student engagement and achievement. Join us in revolutionizing education for the digital age, driving positive outcomes and preparing learners for success in tomorrow's world."



EMBEDDED SYSTEMS

Why Embedded Systems?

-  **Power core technologies like IoT, robotics, and automation**
-  **Essential in consumer electronics, automotive, aerospace, and healthcare**
-  **High demand for skilled professionals across industries**
-  **Offers a blend of hardware and software skills**
-  **Enables real-time, reliable, and efficient system performance**
-  **Critical for innovation in smart devices and connected systems**

1st MONTH



LIVE SESSIONS

Live sessions with industrial experts having experience above 10 years in the industry.

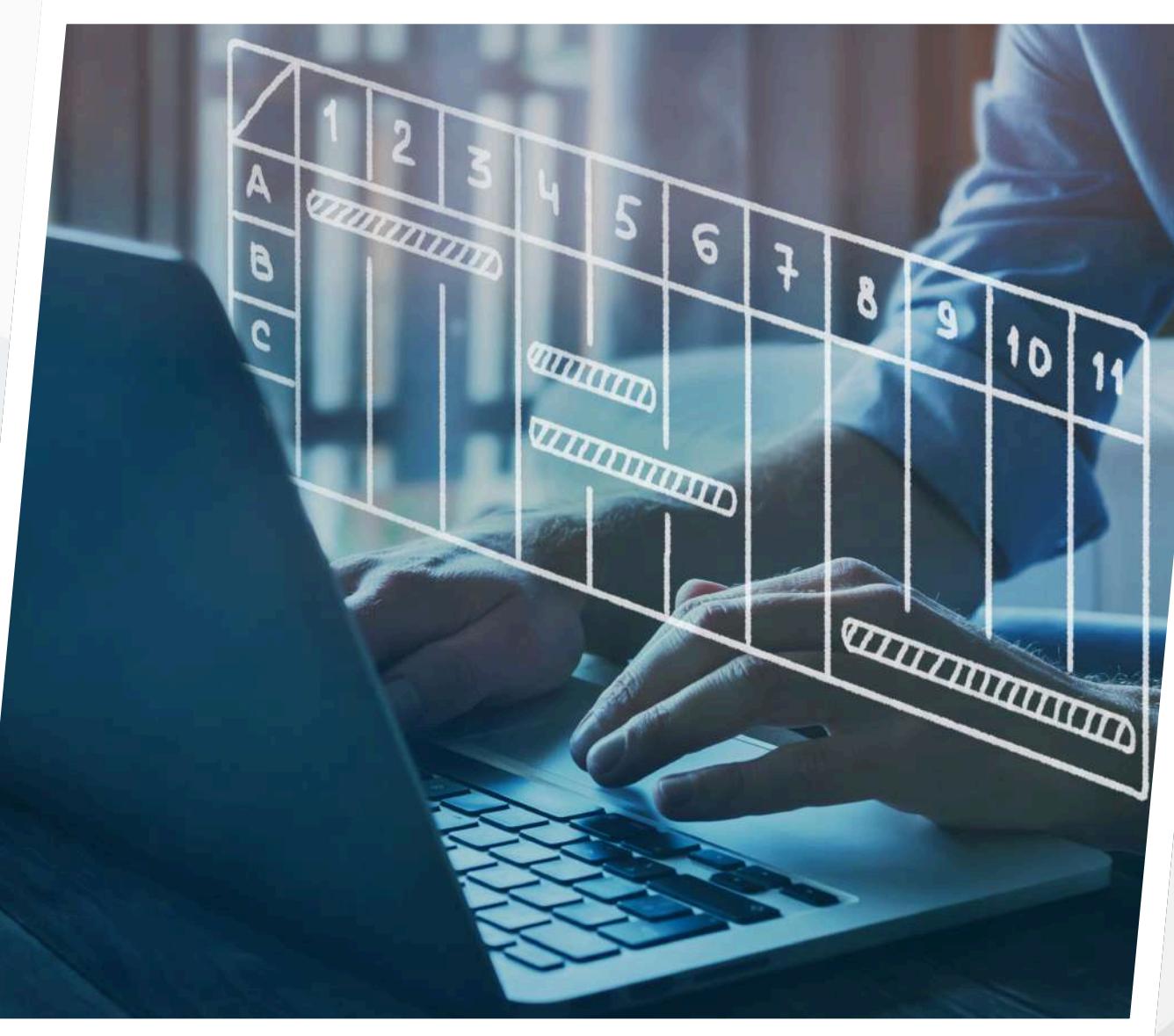
RECORDINGS

Recordings of all live sessions available with 1 year access in our LMS portal.

INDUSTRY RELATED

Industry related curriculum designed by the working professionals in the top hierarchy.

2nd MONTH



REAL TIME PROJECTS

Two real time industrial projects One minor project and One major project.

ASSISTANCE

All mentors will be assigned as project leads and guide the intern till the completion of the project.

PERSONAL DEVELOPMENT

Additional projects for personal development can be required.

Modules Overview

- **Introduction to Embedded Systems**
- **Microcontrollers & Microprocessors**
- **Embedded C Programming**
- **Digital Electronics & Circuit Design**
- **Communication Protocols (UART, I2C, SPI, CAN)**
- **Sensors and Actuators**

Modules Overview

- Real-Time Operating Systems (RTOS)
- Embedded Linux / Bare Metal Programming
- PCB Design & Simulation (using tools like KiCad, Eagle)
- IoT Integration with Embedded Devices
- System Testing & Debugging Techniques
- Capstone Project & Interview Preparation (only for placement assistance
program mock interview preparation)

Curriculum included

MODULE 01

Introduction to Embedded Systems

- Understand the definition and real-world applications
- Explore system components: hardware, software, and firmware
- Learn about embedded constraints (power, memory, performance)

MODULE 02

Microcontrollers & Microprocessors

- Understand the architecture and key differences
- Explore examples like 8051, ARM, AVR, and Arduino
- Learn how to select a microcontroller for a project

MODULE 03

Embedded C Programming

- Learn data types, loops, conditionals, and functions in C
- Interface peripherals like LEDs, motors, and sensors
- Understand memory management and register-level programming

MODULE 04

Digital Electronics & Circuit Design

- Basics of logic gates, multiplexers, flip-flops, counters
- Learn circuit design techniques and boolean algebra
- Work on breadboards and simulation tools

Curriculum included

MODULE 05

Communication Protocols (UART, I2C, SPI, CAN)

- Study synchronous and asynchronous communication
- Interface devices using serial protocols
- Understand timing, addressing, and data transfer

MODULE 06

Sensors and Actuators

- Learn about analog and digital sensors
- Interface actuators like servos, motors, and buzzers
- Read sensor data and convert it for microcontroller input

MODULE 07

Real-Time Operating Systems (RTOS)

- Understand tasks, scheduling, semaphores, and queues
- Learn multitasking in embedded systems
- Implement RTOS on microcontrollers

MODULE 08

Embedded Linux / Bare Metal Programming

- Explore Linux kernel, bootloaders, and drivers
- Understand file systems, GPIO access, and system calls
- Learn bare-metal coding without an OS for speed-critical applications

Curriculum included

MODULE 09

PCB Design & Simulation (using tools like KiCad, Eagle)

- Schematic capture and layout design
- Place components and route tracks
- Run simulations and generate Gerber files

MODULE 10

IoT Integration with Embedded Devices

- Interface Wi-Fi/Bluetooth modules (e.g., ESP8266, ESP32)
- Send data to cloud platforms like ThingSpeak or Firebase
- Control devices remotely via mobile apps or web servers

MODULE 11

System Testing & Debugging Techniques

- Use tools like oscilloscopes, logic analyzers, and multimeters
- Debug embedded C code using breakpoints and watches
- Perform unit, integration, and system-level testing

MODULE 12

Capstone Project & Interview Preparation

- Build a real-world embedded system project
- Document the design, code, and outcomes
- Prepare for technical interviews and coding rounds

Tools Included



Ardutno



XIDE



KEIL



FREE RTOS

Students Reviews



Ramshad K

★★★★★

I have gained a really hands on Experience with on graphic design which was delivered by Akash sir was very supportive and endless worthy experience so far.



Sunil Kumar

★★★★★

I'm Sunil Kumar, I have enrolled for Data Science program at Krutanic solutions and my experience is outstanding. It's my individual recommendation for everyone that Krutanic company is perfect with quality training and real world projects.



Rajendra Prasad

★★★★★

I'm Rajendran Prasad, to be honest I'm expressing my words, I have researched and found the correct certificate on Linkedin and scan that and found it 100% genuine and verified successfully.

It's my individual recommendation for everyone that Krutanic company is perfect with quality training and real world projects.

I have seen some bad reviews and many good reviews so got confused but now I realised that Krutanic solutions is the best company ever for training and internship provider, I have learned a lot of new industrial things.



Shubham Rai

★★★★★

Krutanic Group is truly doing a remarkable job by creating learning spaces that are not only informative but also inspiring. I've had the opportunity to attend two of their courses-Photography and Graphic Designing-and both were simply



Sahad K

★★★★★

I got placement at Wipro through krutanic support team. I am really grateful that I got to learn from AI Mentor Ashish sir and support from my counsellor was really helpful. All thanks to Bhoomika mam my operations support member from krutanic.



Aman Nema

★★★★★

Krutanic's Full Stack Web Development program was a fantastic learning experience. The course covered essential technologies like HTML, CSS, JavaScript, React, and backend development, providing a strong foundation for building real-world web applications. The hands-on projects and expert guidance from mentors made learning interactive and practical. This program is perfect for beginners and aspiring developers looking to enhance their skills in web development. Highly recommended.

Students Reviews



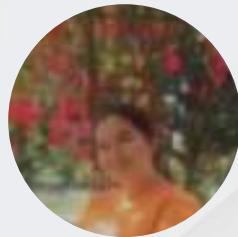
Tejas Kolekar

I am thrilled to share my enriching experience from the Artificial Intelligence and Machine Learning Internship I recently completed with Krutanic, in collaboration with Wipro, a leading multinational corporation. This 3-month program was an incredible opportunity to deepen my knowledge, enhance my skills, and grow both personally and professionally in the dynamic field of AI and ML.



Pranali Shinde

Excited to share that I've just completed a Data Science course from Krutanic! 🎉 It was an amazing journey diving into data visualization, exploratory data analysis, SQL, and machine learning. I've gained some valuable skills that I can't wait to apply in real-world projects. Big thanks to the instructors and everyone who made this experience so enriching! Looking forward to what's next!



Prabhleen Kaur

Just after few months of completion of my AI course I got my hands on attending Master class on Building AI agent without coding held in the month of March my experience was very good
I get to know about new things from my mentor Mr.Aashish Mishra
And at the end i received this 😊
All thanks to Krutanic for giving me this opportunity.....



Rishabh Nagar

Certificate of Training Completion from Krutanic Solutions in the field of Android App Development Krutanic Paidi Venkata Chakravarthi Sir #krutanic #android #app #development #androidstudio



Himendra Shukla

Completing my internship at **KrutaniC** has been a transformative journey, equipping me with hands-on experience in **Full Stack Web Development** and preparing me for a bright future in tech. Grateful for the guidance, real-world projects, and skills gained — here's to innovation and success ahead! *
#InternshipCompletion #FullStackDevelopment #KrutaniC
#TechJourney
Krutanic



Touheed Ahmed Nadaf

Clouds conquered.
Excited to share my Cloud Computing internship certification from Krutanic!
Grateful for the hands-on learning and ready to turn this experience into an impact in the ever-evolving tech landscape.
#CloudComputing #Krutanic #InternshipWin #TechReady
#NextGenTech
#FutureInCloud #LevelUp #DigitalSkills

Discover why this Embedded Systems course is essential for your learning journey.



Career Opportunities in Embedded Systems

Embedded Systems Engineer

Design and develop embedded hardware and software for various electronic devices.

Firmware Developer

Write low-level code that directly controls hardware components.

Embedded Software Developer

Develop applications and drivers that run on microcontrollers or embedded processors.

Career Opportunities in Embedded Systems

IoT Developer

Build Internet of Things devices by integrating sensors, actuators, and embedded platforms.

Hardware Design Engineer

Design PCBs (Printed Circuit Boards) and integrate microcontrollers and peripherals.

System Validation & Testing Engineer

Test embedded systems for performance, reliability, and compliance.

Certifications

01

**Training Completion
Certificate of
Validates the skills
which acquired**

02

**Internship Completion
certificate certified
by
Accenture/Adobe**

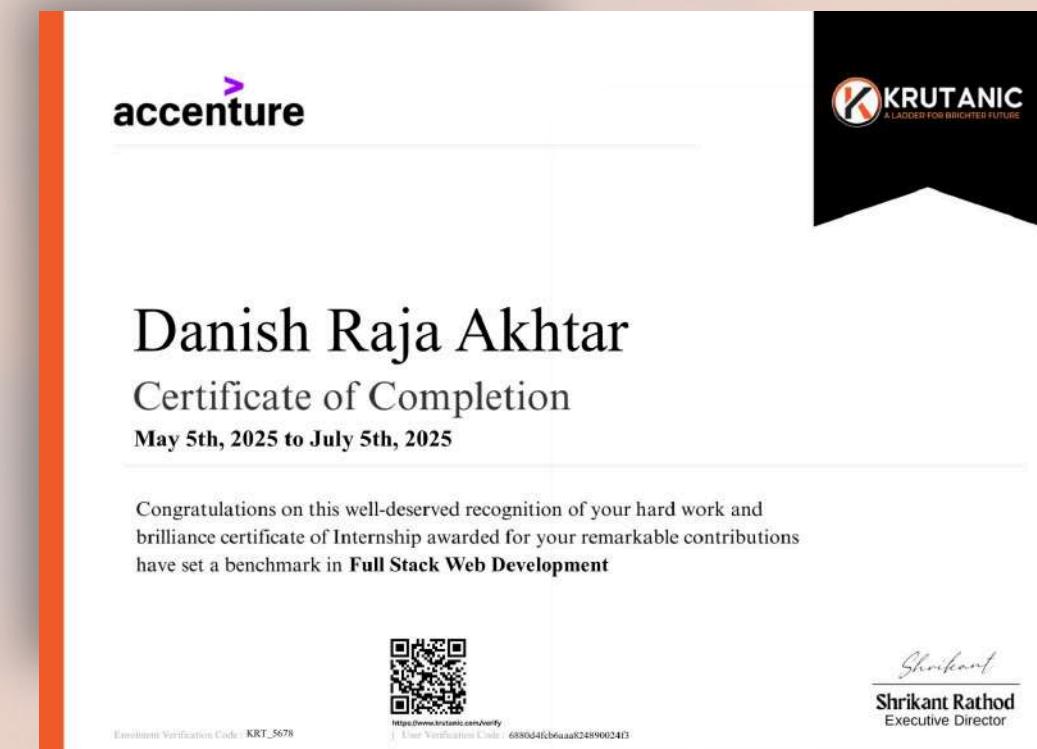
03

**Letter of
recommendation(LOR)
for your
JOB/PLACEMENT**

04

**Certificate of
exellence
(Based on you
Performance)**

Program ratings

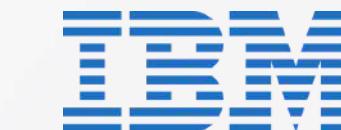


STUDENT AVERAGE RATINGS



4.85/5

Companies where our alumni thrive



Deloitte.



BOSCH

Axxela



Goldman Sachs



Tech Mahindra

Mphasis
The Next Applied

accenture

HCL

cognizant

tcs TATA CONSULTANCY SERVICES

SAMSUNG

Bank of America

ORACLE

pwc

L&T Technology Services

Capgemini

BAJAJ FINSERV

STATE STREET

DXC TECHNOLOGY

Jio DIGITAL LIFE

salesforce

TOYOTA

Adobe

HSBC

leadsquared

ABInBev

B.
Booking.com

SONY

SIEMENS

TISCO

Our process

Quick Guide



Register With Us



Schedule Your Class



Certifications



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