

Hands On National Workshop on

## “VEGA PROCESSOR ECOSYSTEM- Initiative towards Make in India”

2<sup>nd</sup> - 3<sup>rd</sup> MAY 2023

Organized by

### Sharda School of Engineering and Technology

Department of Electrical Electronics and Communication Engineering

in association with

C- DAC and IEEE India Council

### About Vega Microprocessor

Digital India RISC-V Microprocessor (DIR-V) Program was launched by Ministry of Electronics and Information Technology (MeitY) as one of the concrete steps towards “Atmanirbhar Bharat”, with an aim to enable creation of Microprocessors for the future, in India, for the world and achieve industry-grade silicon. This program will make India not only a RISC-V Talent Hub for the World but also supplier of RISC-V SoCs for a wide range of applications. Centre for Development of Advanced Computing (C-DAC) a premier R & D organization under the MeitY, Govt. of India for carrying out Research and Development activities in IT, Electronics and associated areas for strengthening national technological capabilities. As part of the DIR-V Program C-DAC has successfully developed the VEGA series of microprocessors and related IPs and the complete ecosystem to enable fully indigenous product development that meets various requirements in the strategic, industrial and commercial sectors. These high performance processors are based on the free and open source RISC-V Instruction Set Architecture.

### About Sharda University

Sharda University (NAAC A+ Accredited) is a leading educational institution based in Greater Noida, Delhi NCR, India. A venture of the renowned SGI group, the University has established itself as a high-quality education provider with a prime focus on holistic learning and imbibing competitive abilities in students. The University is approved by UGC and prides itself in being the only multi-discipline campus in the NCR, spread over 63 acres and equipped with world-class facilities having more than 21,000 students in more than 180 courses. Being the only global University in India that has seen students from 85+ countries, experience world-class facilities, and has 250+ global academic partnerships. Sharda University offers a truly international learning environment.

### About Department

Department of Electrical Electronics and Communication Engineering (EECE), Sharda School of Engineering and Technology (SSET) shares the vision and mission of Sharda University in imparting quality education to the students to meet the national and global challenges by providing a stimulating and flexible learning environment for its students as well as faculty. The Department of EECE is one of the premier departments of the School of Engineering and Technology, Sharda University. Both of its B.Tech. Programmes (Electrical & Electronics Engineering and Electronics & Communication Engineering) are Accredited by the National Board of Accreditation (NBA).

In this era of globalization where the whole world is well knit and networked, Electronics and Communication Engineering is the most sought after engineering branch among budding Engineers. The Department of EECE offers B. Tech., M. Tech. and Ph. D. programmes to cater the needs of supplying the best professionals in Electronics and Communication Engineering and Electrical and Electronics Engineering at national and international level. The Department is equipped with excellent research facilities in the field of VLSI design, Microwave Engineering, High-speed Networking and Communication, Embedded Systems, Intelligent Systems, Parallel Bus Architecture and Designing high-performance systems, Signal Processing, Biomedical Instrumentation, Control Engineering Renewable Energy and Power Engineering. Electrical and Electronics engineers are working today in all spheres of modern society, be it internet, cellular communication, satellites, industrial control systems, power systems, non-conventional energy sources or DC and AC transmission systems.



### About Workshop

This is a national workshop on the newly launched indigenous RISC-V based VEGA Processors. Experts from C-DAC, who are part of VEGA Processor development team, will be the resource persons. The DIR-V VEGA workshop will provide an insight into the VEGA series of processors and ecosystem focusing on both the theoretical and practical aspects of the VEGA processors, development boards, SDK and on building applications. The hands-on sessions will be conducted on the ARIES development board which is Arduino compatible. Certificates will be issued after the successful completion of the workshop.

### Registration Details

Register at the given google form link with your details.

Registration link: [www.tinyurl.com/a4eu673z](http://www.tinyurl.com/a4eu673z)

### Registration QR



### Payment QR



Pay the registration fee at the given Payment QR code (Paytm wallet) or find the bank details below.

Bank Name	<b>ICICI Bank Ltd.</b>
Branch Address	<b>Krishna Apra Royal Plaza, D-2, E(acb), Alpha-1, Greater Noida, Gautam Budh Nagar, UP- 201306</b>
Account Holder Name	<b>Sharda University-Seminar</b>
Account No.	<b>025405005815 (CURRENT AC)</b>
IFSC Code	<b>ICIC0000254</b>
SWIFT Code	<b>ICICINBBCTS</b>
MICR Code	<b>110229037</b>

Registration Deadline: **24<sup>th</sup> April 2023.**

Participants will be shortlisted on a first come first serve basis (90 seats).

Registration Fees-

1. IEEE members: **Rs 354** /- (Registration fee + 18% GST)
2. Non-IEEE members: **Rs 472** /- (Registration fee + 18% GST)

### Workshop Content

#### DAY 1

- Introduction to VEGA Processors
- Interfacing sensors and modules
- Interfacing sensors and modules
- Application development using sensors and modules

#### DAY 2

- Introduction to IoT and interfacing IoT modules
- Introduction to Adafruit API and Alexa integration
- IoT Application development using modules and sensors

## RESOURCE PERSON



Name: **Mr.Sreenadh S**  
Designation: **Scientist E**

Organization: **C-DAC Trivandrum**

Profile: **Expertise in Linux porting and Linux device driver development, Embedded software design and development and Firmware development for verification of in-house developed IP cores.**



Name: **Mr.Premjith A.V**  
Designation: **Project Manager**  
Organization: **C-DAC Trivandrum**

Profile: **He is having more than 12 years of experience in Software Development and mainly focused in C/C++ embedded firmware development, Linux driver development and Java based application development.**



Name: **Mr.Diwane Himanshu Kishor**  
Designation: **Project Engineer**  
Organization: **C-DAC Trivandrum**

Profile: **He is working as a Project Engineer in hardware design group of CDAC Trivandrum. He is mainly focused in C/C++ embedded firmware development.**

## Chief Patron



**Shri. P. K. Gupta**  
Hon. Chancellor, SU



**Shri. Y.K. Gupta**  
Hon. Pro- Chancellor, SU

## Patrons



**Mr. Prashant Gupta**  
Executive Director, SU



**Prof. (Dr.) Sibaram Khara**  
Vice - Chancellor, Sharda University

## Conveners



**Dr. Parma Nand**  
Professor & Dean SSET



**Dr. Tarun Varshney**  
Professor & HOD, EECE, SSET

## Organizing Committee

- **Dr. Pallavi Gupta, Professor, EECE**
- **Dr Amit Sehgal, Professor, EECE**
- **Dr. M. M. Deshmukh, Professor, EECE**
- **Dr. Pratima Walde, Professor, EECE**
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- **Dr. Sucheta Singh, Assistant Professor, EECE**
- **Mr. S. Mukherjee, Assistant Professor, EECE**
- **Ms. Manisha Rajoria, Assistant Professor, EECE**

For any query kindly contact:

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