Swadeshi Microprocessor Challenge

August 19, 2020

The Electronics and Information Technology Ministry launched a 'Swadeshi Microprocessor Challenge', as part of the government's vision to become a self-reliant country and give **impetus to the start-up ecosystem, innovation and research** in the country.

Microprocessor Challenge

The challenge seeks to **invite innovators, startups and students to use these microprocessors to develop various technology products.** IIT Madras and Center for Development of Advance Computing (CDAC) have developed two microprocessors named SHAKTI (32 bit) and VEGA (64 bit) respectively using open source architecture under the aegis of **Microprocessor Development Programme.**

As one of the concrete steps towards realizing the ambition of self-reliance, this initiative is aimed at not only meeting India's **future requirements of strategic and industrial sectors but also has the potential to mitigate the issues of security, licensing, technology obsolescence and most crucially cutting dependency on imports.** The design, development & fabrication of these state-of-the-art processor variants at foundry in the country and abroad, is the successful step to leapfrog to the ultimate goal of the **vibrant ecosystem of Electronic System Design & Manufacturing** in the country.

The challenge is part of the series of proactive, preemptive and graded measures taken by the Ministry of Electronics and IT to spur the technology led innovation ecosystem in the country and staying at the forefront of digital adoption. Open to students at all levels and startups, the challenge demands

contestants to **not only tinker with these Swadeshi processor IPs & facilitate them with innovating the frugal solutions for societal needs but also make available the entire home-grown ecosystem around Swadeshi processors to develop the complex designs** for catering to both global and domestic requirements in near future.

The Ministry offers a slew of benefits to the contestants and technology resources that include **not only the internship opportunities and regular technical guidance from the best VLSI & Electronics System Design experts in the country but also the business mentorship & funding support, facilitated by incubation centres.** Financial support to the tune of Rs. 4.30 crore at various stages of the challenge for developing the hardware prototype and incubating a start-up is being offered.

The challenge spread over 10 months, kick-started on 18th August 2020 and culminates in June 2021, with an opportunity for 100 semi-finalists to win a total Rs.1.00 crore of award, 25 finalists to win total Rs.1.00 crore of award and top 10 teams entering the finale, will get the seed fund of total Rs2.30 crore and 12 months incubation support. Above all, participants will get an opportunity to translate their innovations around Swadeshi processors, showcase them at a higher viewership platform and **facilitate them to scale from ideation to marketplace.**