Sidebar Infographic:

REDEFINE

Exclusive debut presentation of a novel low-power reconfigurable massively parallel processor and accelerator SoC platform (REDEFINE ™) for Edge AI, autonomous vehicles, safety-critical and mixed-criticality systems, and *HPC-on-the-Edge*, in embedded and real-time systems.

By *Morphing Machines*. Brought to you by *Safran*. Do not miss this exclusive story.

Morphing Machines

Detailed Info Page at https://www.embedded-france.org/redefineday/

REDEFINE™ – A novel low-power reconfigurable massively parallel accelerator platform for embedded systems

A cost-effective and power-efficient hardware platform for high-performance computing for the embedded and real-time systems (ERTS) domain has long been on the wish list of embedded systems designers worldwide. In addition to being power-efficient, such a platform must also be a natural fit with the event-driven and data-driven programming models familiar to the ERTS community. Recent advances in Edge AI and the need for deployment of efficient AIs for mixed-criticality applications at the edge – including autonomous vehicles and airborne systems and other edge devices – further underscore the need for such a platform.

Welcome to Morphing Machines – a fab-less semiconductor company launched from India's foremost research institution, the Indian Institute of Science (IISc) at Bangalore, India. Morphing Machines has developed a novel reconfigurable massively parallel processor architecture and SoC platform named REDEFINE ™ that promises to offer such a hardware platform. The data-flow driven programming model of REDEFINE ™ is a natural fit for event-driven applications. The REDEFINE ™ SoC platform also enables compiler-assisted software-controlled run-time power management, hardware fault-tolerance, and several other features relevant for ERTS applications. The run-time hardware specialization and reconfiguration capability of the REDEFINE ™ platform enables powerful *software-defined-hardware* capability that supports hardware acceleration of multiple independent applications on the same silicon. This is potentially a great match for the needs of flexible high-performance on-board computing for safety critical and mixed criticality applications in autonomous vehicle systems.

The Safran Group, as part of its R&D collaboration outreach in India, has been engaged with Morphing Machines since several years, and has been an early champion of the REDEFINE ™ technology. After several years of evaluation and independent validations conducted by research teams at IISc Bangalore, Georgia Tech, Atlanta, as well as INRIA, Paris, and continuous iterative engineering refinement by Morphing Machines, REDEFINE ™ is now ready for a debut pitch in front of the Embedded France community.

Be there at the exclusive **REDEFINE Day** event at the ENSEEIHT, Toulouse, during 15h00 to 17h00 on Friday 31 Jan, 2020, to know all about the exciting new REDEFINE ™ technology. Attendees of the 10th European Congress on Embedded Real Time Systems (ERTS 2020 Toulouse) – the exciting story of REDEFINE ™ awaits you at ENSEEIHT, a stone's throw from the Piere Baudis Congress Centre, right after the closing of the ERTS 2020.

More details at: https://morphing.in/redefineday