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## IEEE STMicroelectronics INTERNSHIP INITIATIVE

STMicroelectronics is a world leader in providing the semiconductor solutions that make a positive contribution to people's lives, today and into the future. Offering one of the industry's broadest product portfolios, STMicroelectronics serves customers across the spectrum of electronics applications with innovative semiconductor solutions for Smart Driving and the Internet of Things. By getting more from technology to get more from life, STMicroelectronics stands for **life.augmented** (visit [www.st.com](http://www.st.com) for more details).

MEMS Microactuator Division (MMD) inside STMicroelectronics conceive and industrialize new actuator products based on MEMS and ASIC technologies, leveraging on multidisciplinary skills and competences. MMD is looking to highly motivated, high potential **students** (under graduated, graduate, PhD) to fill internship positions and be involved on innovative R&D projects. Here a short list of the main themes proposed:

- 1) Study and Design of a digital interface circuit to link Video Application Processors and Laser Driver ICs in Laser Beam Scanning projectors (LBS). The circuit will manage the synchronization of the video source with the driver, as far as the laser color calibration management will be implemented. The circuit will be embedded in an LBS prototype application for augmented reality and virtual reality (AR/VR).
- 2) Study and design of a digital controller for MEMS micro mirror in Laser Beam Scanning applications (LBS). The circuit will manage the control of a resonant MEMS mirror and of a linear MEMS mirror with the goal of generating a raster scan movement. The circuit will be embedded in an LBS architecture for augmented reality and virtual reality (AR/VR) where, together with an analog ASIC, it will control the mirrors as far as it will generate and manage the video synchronisms.

Internships, limited to students, may take:

- 1) Up to 12 months for undergraduate MSc and PhD students
- 2) 6 months for graduated MSc

We look to very interested people, well committed to the project until the end of the internship period that will be regulated by a contract. The candidate has to be knowledgeable in RTL languages. Knowledge of C for high level synthesis is preferable. Good MATLAB knowledge and basic knowledge on Unix OS required. It shall have attitude to work diligently in a team of experts and with reliable creativity.

STMicroelectronics accordingly to his recruiting rules will offer salary that will be discussed during the formal interview. Language requirements are English or Italian.

For more information please contact

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