

Europractice IC Service Expands to MEMS Prototyping

Since 1995, Europractice IC Service has brought ASIC design and manufacturing capability within the technical and financial reach of any university, research institute and company. Coordinated by IMEC, it offers low-cost ASIC prototyping and ASIC small-volume production through MPW and dedicated wafer runs at leading foundries and IC manufacturers, including AMI Semiconductor, austriamicrosystems, IHP, TSMC and UMC.

Now Tronics is the first technology provider selected by IMEC to support Europractice IC Service's exten-

sion of its production portfolio to MEMS and will provide the programme access to one of its MEMS on SOI technologies through regular MPW runs. The service will target training, prototyping and innovation at universities and research labs. Tronics first offered a 20µm-thick SOI technology on MPW in 1999. The company upgraded its capabilities to 60µm-thick SOI High Aspect Ratio Micromachining with hermetic wafer level packaging in 2006. This technology was originally introduced for the production of high-performance accelerometers

and gyros. The process enables the creation of capacitive sensors, electrostatic actuators, resonators, energy scavengers and other innovative mechanical structures.

Through the partnership, IMEC will provide support and access to the MPW service to the university and research lab members of the Europractice IC Service throughout the world.

More information:
www.tronics.eu
www.europractice-ic.com

EUMIREL, the European Microsystems Reliability Service Cluster, Secures its first Contract

The European Microsystems Reliability Service Cluster – EUMIREL has recently been developed out of the "Design for Micro & Nano Manufacture – PATENT" network. EUMIREL offers a wide range of reliability services to the European Microsystems industry:

Reliability analysis:

- Application-depending accelerated reliability tests of MEMS, especially for harsh environment
- Quantitative Accelerated Life Testing of MEMS for calculating reliability indicators
- Functional testing in different environments: temperatures, pressure, gasses, humidity, vibration, etc.
- Electrical and environmental reliability testing including statistical data processing where possible
- Failure analysis including multi-physics modelling
- Design of dedicated test structures for reliability monitoring
- Research-based services on MEMS reliability

Consultancy:

- Advice on MEMS reliability including material, processing and packaging related issues
- Development of reliability test plans
- FMEA studies
- Advice on test instrumentation and set-up and reliability methodology

Information about reliability issues

- Access to databases on material issues, test structures, test equipment availability and MEMS failure mechanisms,

...and a wide range of Training Courses on all aspects of MEMS reliability.

EUMIREL has now secured its first contract on the modelling of charging effects for improved MEMS reliability. The project is aimed at improving the understanding of failure mechanisms leading to improved reliability in products (design for reliability) and predicting device failure likelihood associated with charging.

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EUROPRACTICE News is provided to mstnews readers by EUROPRACTICE - Microsystems Service for Europe.



EUROPRACTICE is funded by the European Commission, Information Society & Media Directorate-General, Integrated Micro & Nano Systems

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