

PRESS RELEASE

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Ideas for Green Electronics Manufacturing at the 10th MikroSystemTechnik Congress in Dresden

The largest German-speaking congress in the field of electronics and microsystems will be held in Dresden from October 23 - 25, 2023. On the occasion of the tenth anniversary, sustainability and technology sovereignty in particular will be presented in exhibits and conference contributions. Fraunhofer IZM will be presenting possible solutions for resource-efficient microsystems at the joint booth of the Forschungsfabrik Mikroelektronik (FMD) on level 5, booth 14.

The globally increasing demand for semiconductors shows how important an intact chain of trust (CoT) is for the electronics industry. However, as a result of the advancing digitization worldwide, other issues are coming to the fore front in addition to the mere availability of semiconductors. Technological sovereignty and reliability in microelectronics ("Trusted Electronics"), sustainability aspects ("Green ICT") and Next Generation Computing will therefore be the focus of this year's MST Congress. The technical presentations will be accompanied by a trade exhibition on all three conference days at the Maritim Congress Center Dresden. The highlight demonstrators at Fraunhofer IZM's booth will showcase various solutions for greater resource efficiency as well as reliable and more sustainable electronics.

Future-proof glass interposers

Considering stricter environmental requirements, high-frequency technologies made of glass can be a useful solution to remain competitive in radar sensor technologies. In the BMBF-funded project "GlaRA", Fraunhofer IZM and an international consortium have developed radar sensors for industrial and process measurement technology. For more information on the challenges of photonic packaging of integrated circuits on glass interposers, you can attend the conference presentation by our colleagues from Fraunhofer IZM and the Technical University of Berlin on Wednesday, October 25 at 2 pm or visit our booth and test the next generation of glass interposer technology.

Trustworthy electronics for Industry 4.0

The results of the BMBF-funded project "SiEvEI 4.0" show how an access memory system can protect the entire chain of trust (CoT) against attacks from third parties. Fraunhofer IZM created an explanatory video to illustrate how the sensor platform can promote the networking of production facilities and the digitalization of business processes by using so-called "Smart Secure Systems" (SSI). This contributes to more trustworthy electronics. Learn more and exchange ideas with our colleagues on site.

Editorial Desk

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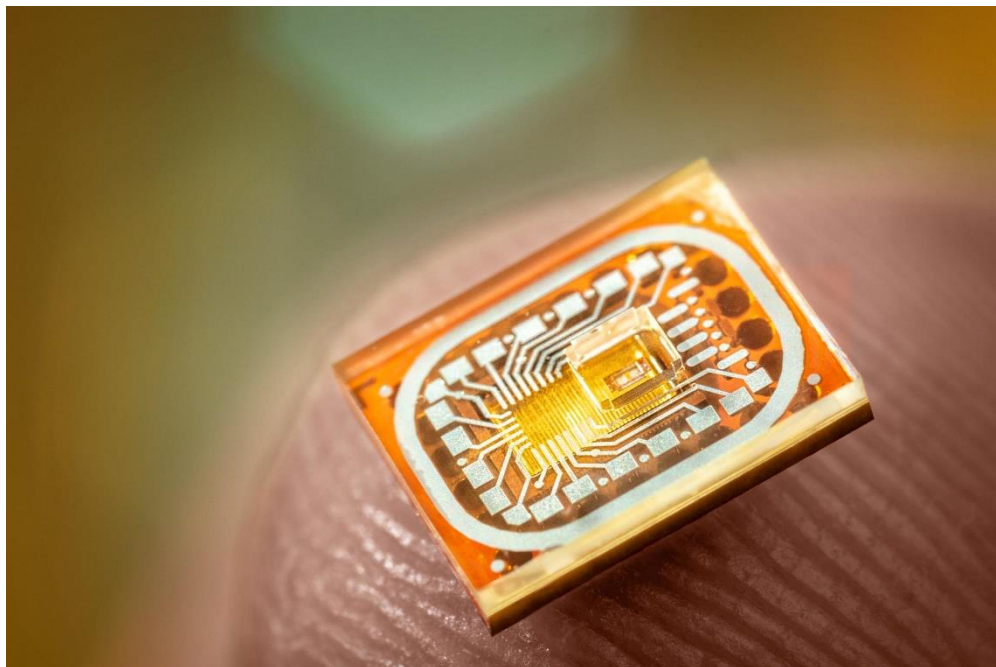
Competence center for more resource awareness

Fraunhofer IZM's sustainability experts develop cost and environmental models, prepare holistic environmental assessments and devise strategies on how critical raw materials in high-tech products can be used and reused for longer periods of time. Our experts apply this know-how in the BMBF-funded competence center "Green ICT @ FMD" and, together with the other participants, create offers and solutions for resource awareness within industry in Germany and Europe. Dr. Nils Nissen, sustainability expert and head of the department "Environmental and Reliability Engineering" at Fraunhofer IZM, will give an in-depth insight into the energy and resource consumption of information and communication technology up to the year 2035 in his conference presentation on October 25 at 5 pm.

The Dresden branch of Fraunhofer IZM-ASSID will also be on site and will present exhibits on the current state of wafer-level system integration activities. Further information on all speakers and demonstrators can be found on our website:

https://www.izm.fraunhofer.de/en/news_events/events/mikrosystemtechnik-conference.html

(Text: Niklas Goll)



High-frequency technology all in glass - At the MST Congress, visitors will also learn how semiconductor processes are becoming more environmentally friendly.

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The **Fraunhofer-Gesellschaft**, headquartered Germany, is the world's leading applied research organization. With its focus on developing key technologies that are vital for the future and enabling the commercial exploitation of this work by business and industry, Fraunhofer plays a central role now and in the future. Founded in 1949, the Fraunhofer-Gesellschaft currently operates 75 institutes and research institutions throughout Germany. The majority of the organization's 30,000 employees are qualified scientists and engineers, who work with an annual research budget of 2.9 billion euros. Of this sum, 2.5 billion euros are generated through contract research.

Fraunhofer IZM: Invisible - but indispensable: nothing works without highly integrated microelectronics and microsystems technology. The basis for their integration into products is the availability of reliable and cost-effective packaging and interconnection technologies. Fraunhofer IZM, a world leader in the development and reliability assessment of electronic packaging technologies, provides its customers with customized system integration technologies at wafer, chip and board level. Research at Fraunhofer IZM also means making electronics more reliable and providing its customers with reliable information on the durability of the electronics.

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