PRESS RELEASE

PRESS RELEASE
No. 06 | 2024
June 07, 2024 || Page 1 | 7

United by Science

United Science at the Fraunhofer Campus for the Dreden Science Night

(Dresden, 07.06.2024) On the evening of June 14, 2024 Dresden will once again be a hive of activity and many young as well as old night owls will be able to experience science and research interactively at Dresden's universities, research institutions and scientific companies and laboratories. In keeping with the motto of this year's 21st Dresden Science Night – United By Science – the Fraunhofer Institutes FEP, IFAM, IKTS and IWS will once again be jointly opening the doors to the Fraunhofer Campus at Winterbergstrasse 28.

The whole world of application-oriented research can be experienced at over 30 stations at the four institutes. The scientists offer a colorful program for curious visitors of all ages with amazing hands-on experiments, exciting exhibits, a children's quiz, a wheel of fortune and exclusive insights into laboratories and facilities – on this night you can experience research up close. The researchers will also take you into the world of science in various entertaining presentations. And those who would prefer to remain here can find out about opportunities and career paths at Fraunhofer at the various recruiting stations.

Science Power Circle @Fraunhofer IWS

The journey can start at the Fraunhofer Institute for Material and Beam Technology IWS. Whether materials, medical or laser technology – the institute's researchers invite visitors to actively discover with small and large hands-on tasks.

For example, they can try their hand at finger soccer and shoot at laser-welded goals. At this station, the scientists from the laser cutting and laser welding groups demonstrate how they cut, fold and weld these goals. The question remains: Who will win?

Another opportunity to get a taste of everyday life at the Fraunhofer IWS is the "Squeegee Challenge". In additive manufacturing in a powder bed, a complex structure is created from metal powder. Visitors can recreate this process with sand during the challenge. If sand is not your cup of tea, the chocolate 3D printer offers a sweet approach to additive manufacturing.
For all muscle fanatics, the Fraunhofer IWS and the team from the Dresden Cardiac Center offer a glimpse into medical technology. In so-called lab-on-chip systems, the

Head of Corporate Communications
Markus Forytta | Fraunhofer Institute for Material and Beam Technology IWS | Phone +49 351 83391-3614 |
Winterbergstraße 28 | DE-01277 Dresden | www.iws.fraunhofer.de | markus.forytta@iws.fraunhofer.de

researchers show muscle cells and their reactions. Such systems should make it possible to reduce the number of animal experiments in medical research in the future.

For those who not only want to do science, but also have a career, the career bar offers the opportunity to get into conversation while enjoying fruity smoothies. From training and studies to new challenges, the institute's HR staff will be on hand to answer questions.

Ceramics – indispensable in Many Industries

At the Fraunhofer Institute for Ceramic Technologies and Systems IKTS, exciting experiments, hands-on activities and exclusive laboratory tours provide insights into high-performance ceramics and non-destructive materials testing. You will be amazed at the products and applications that use ceramics!

At our hands-on stations, children and young people can, for example, "gold-plate" 5-cent coins, look inside objects with VR glasses and prove their aiming accuracy with ultrasonic darts. Adults learn how ceramics can revolutionize the world of energy and how to clean wastewater with electricity. We also show how to print an artificial reef.

Guided tours provide exclusive insights into our 3D printing laboratories and the "Ceramics Meeting Point". In their presentations, our experts will explain why ceramics, an inconspicuous material until now, deserves more attention and how bacteria can be turned into living stones.

Magnets, Metals and Sporty Water Drops

The Dresden branch of the Fraunhofer Institute for Manufacturing Technology and Advanced Materials IFAM has a lot going on! The institute will be showcasing highlights from the fields of hydrogen technology and additive manufacturing as well as solutions for mobility. In the Innovation Center Additive Manufacturing ICAM®, for example, curious visitors can experience 3D printing in action.

Furthermore, the researchers will be demonstrating in mechanical testing that no nut is too hard to crack for Fraunhofer IFAM.

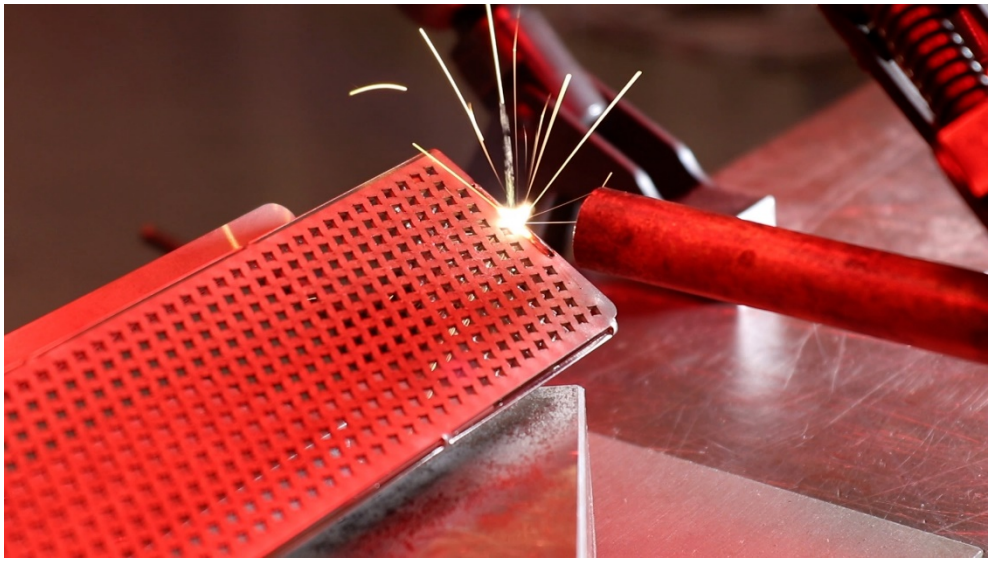
In various experiments, you can also experience what metallic foams and magnets can do. And in which areas of everyday life they play a decisive role.

Finally, things get sporty at Fraunhofer IFAM when water drops are sent into the race. So on your marks – get set – go!

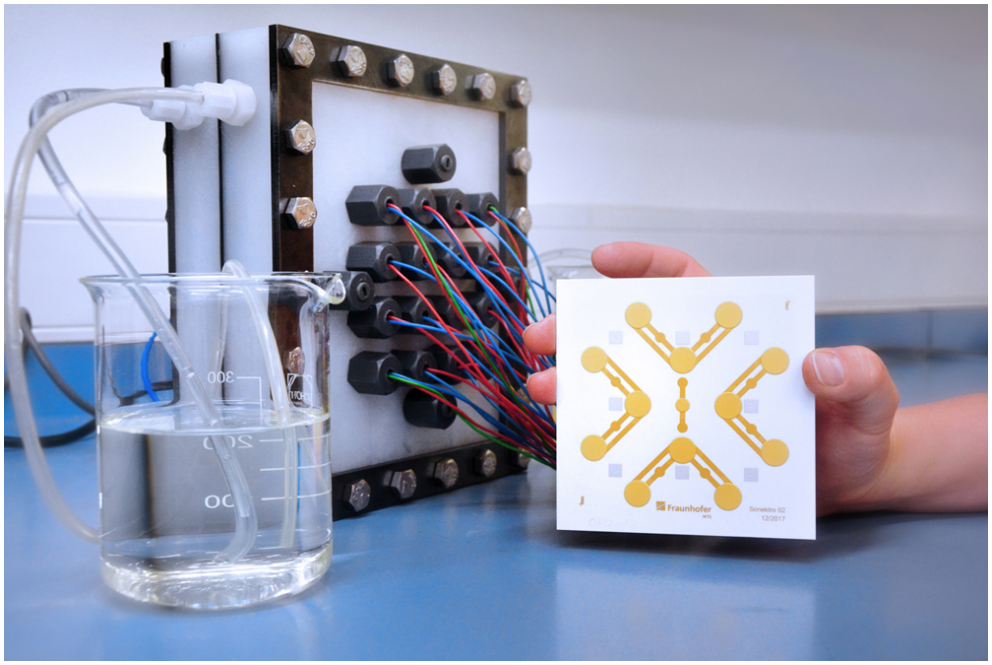
The World of Thin Layers – Printed, Lacquered, Cleaned

At the Fraunhofer Institute for Electron Beam and Plasma Technology FEP, the experts for surface coatings will open up some of their plant halls and show visitors the atmoFlex 1250 roll-to-roll system in operation, among other things, and industry-related research can be experienced live. The researchers use a large coating system to explain what varnishing looks like in action in fast motion. Afterwards, young and old can create their own works of art by printing on cotton bags and watch liquids dance along the way. Once your hands are all dirty, the experts from the Cleaning Technologies group show what the power of surfactants can do. The little ones can also make their own soap and discover how our researchers prepare historical objects and clean surfaces in an environmentally friendly way.

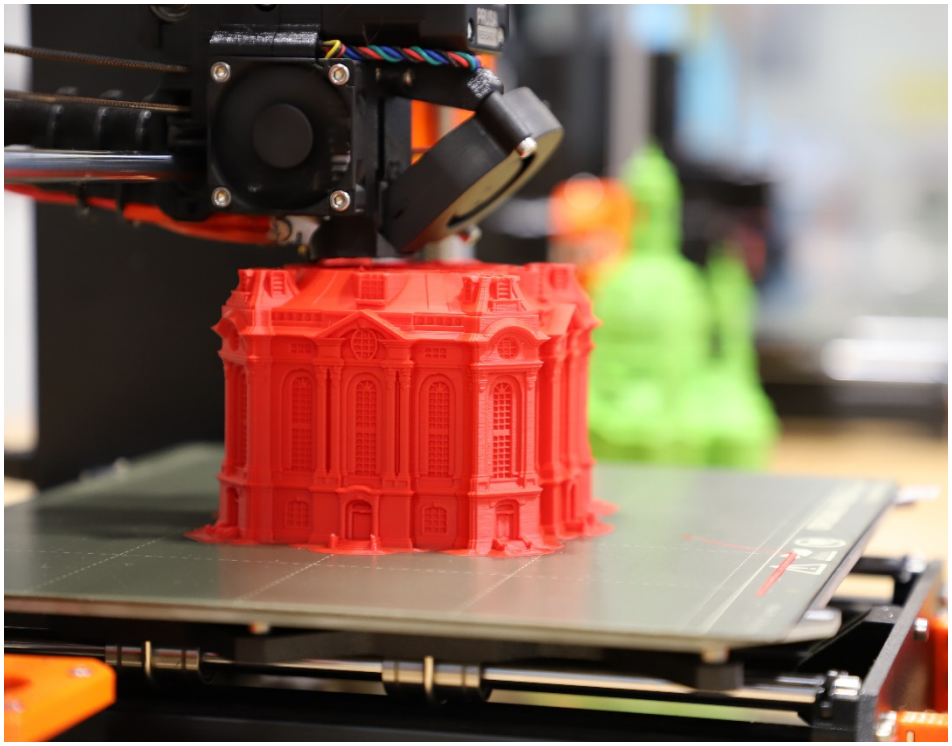
At the Fraunhofer FEP, large systems not only stand in the hall, but are also designed and realized here. The Systems division shows how complex prototypes are manufactured and tests visitors' spatial thinking when converting 2D drawings into 3D models. You can find out whether you have got the hang of it in the end by playing the wheel of fortune or by talking to the recruiters on site.



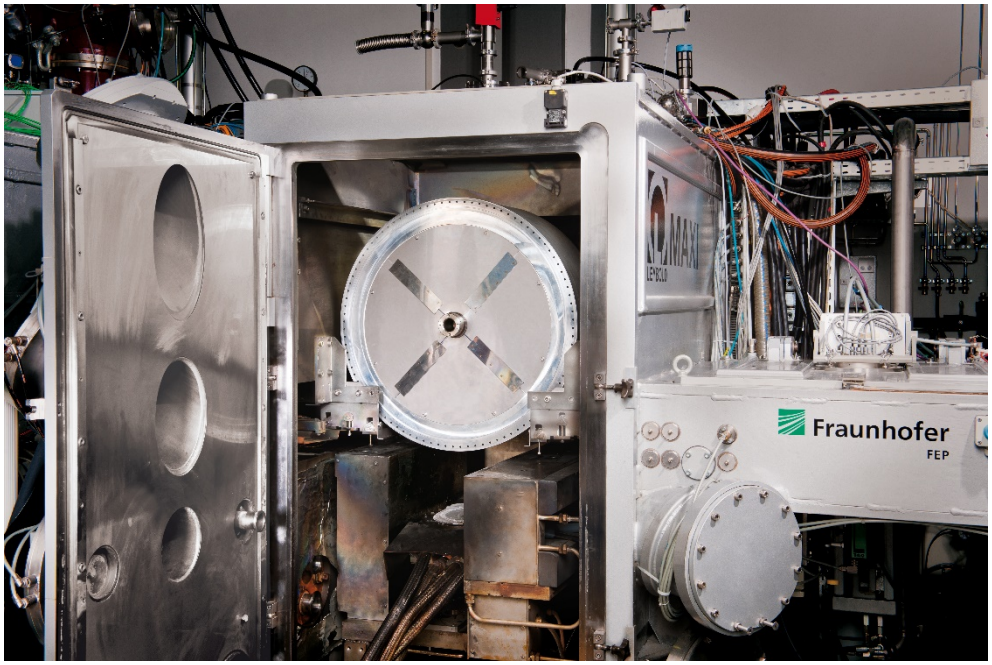
The Fraunhofer IWS groups Laser Welding and Laser Cutting produce goals for the "Finger Football Challenge" and both young and old hobby footballers can watch it live.
© Fraunhofer IWS



At Fraunhofer IKTS researchers explain how to clean wastewater with electricity and electrochemical methods.
© Fraunhofer IKTS



At Fraunhofer IFAM you can watch how components are created layer by layer in 3D printing.
© Fraunhofer IFAM



Unique insights into plasmas and large-scale coating systems are offered by researchers at the Fraunhofer FEP.
© Fraunhofer FEP