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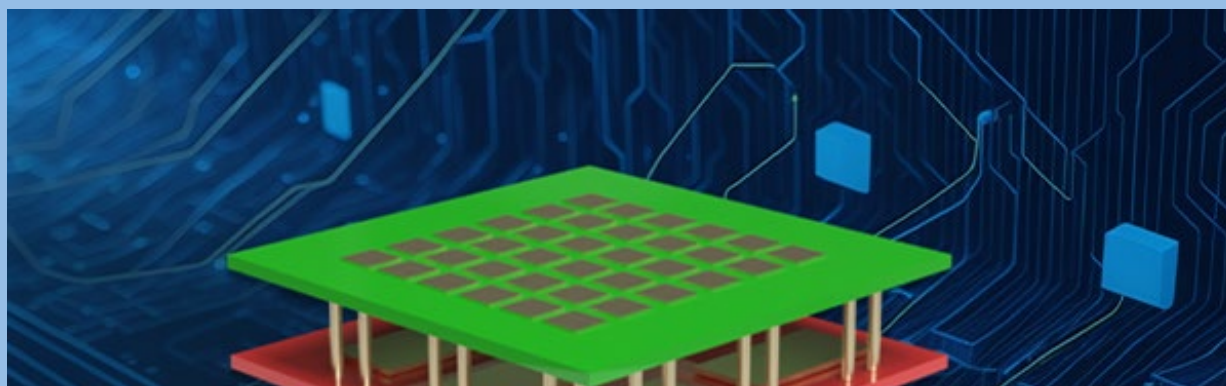


PennState
Materials Research
Institute

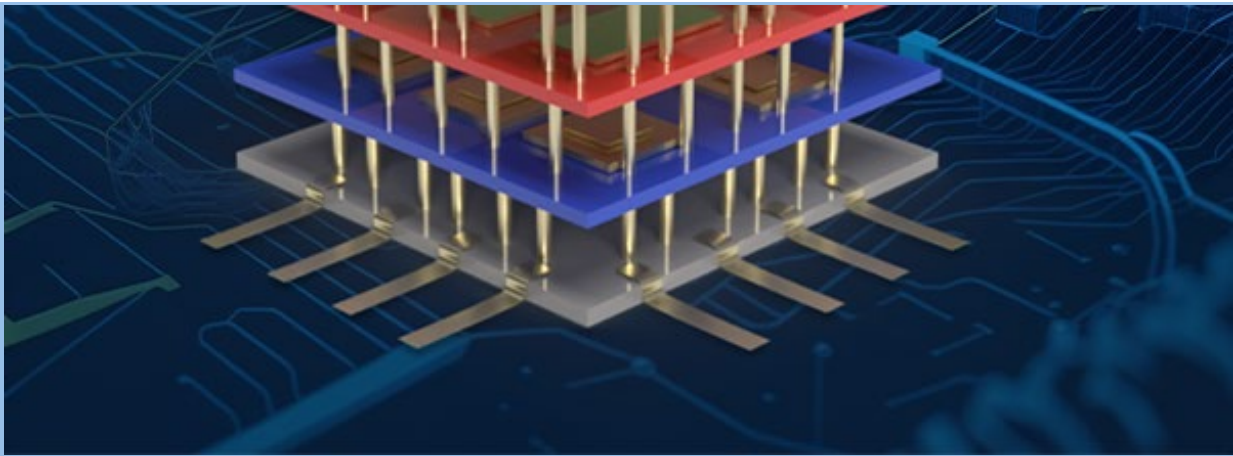
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FEATURED STORY



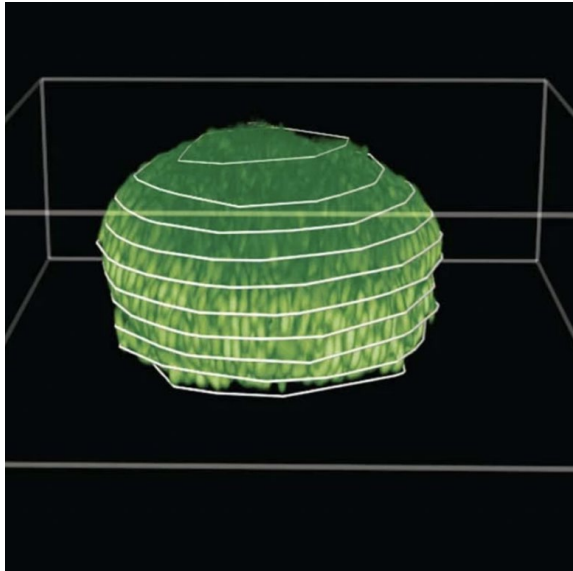
INTEGRATING DIMENSIONS TO GET
more out of Moore's Law and advance electronics



Penn State researchers demonstrated 3D integration of semiconductors at a massive scale, characterizing tens of thousands of devices using 2D transistors made with 2D semiconductors, enabling electronic gadgets to possibly become smarter and more versatile.

[Read this featured story ⇒](#)

OTHER NEWS



Growing biofilms actively alter host environment, new study reveals

A new study led by Penn State researchers reveals exactly how growing biofilms shape their environments and fine-tune their internal architecture to fit their surroundings.

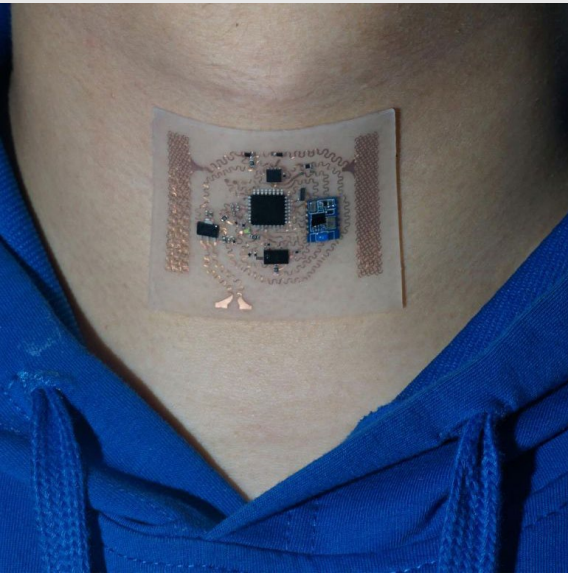
[Read more ⇒](#)



Spinning up control: Propeller shape helps direct nanoparticles

The optimized shape of these particles allows researchers to better control the nanoparticles' movements and to pick up and move cargo particles.

[Read more ⇒](#)



Health data, faster: Wearable stretchy sensor can process, predict health data

Engineering researchers created a machine learning platform that can more efficiently analyze and predict data points collected by wearables.

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Engineering professor named National Academy of Inventors fellow

The National Academy of Inventors (NAI) named Qiming Zhang, distinguished professor of electrical engineering in Penn State's College of Engineering, a fellow — the highest professional distinction awarded to academic inventors.

[Read more →](#)



NEW!



Partnering for a Strong American Semiconductor Future

MASH: Partnering for a Strong American Semiconductor Future

NEW DIGITAL BOOKLET

MASH will support the CHIPS and Science Act to enhance America's strength in semiconductors and microelectronics and promote economic development.

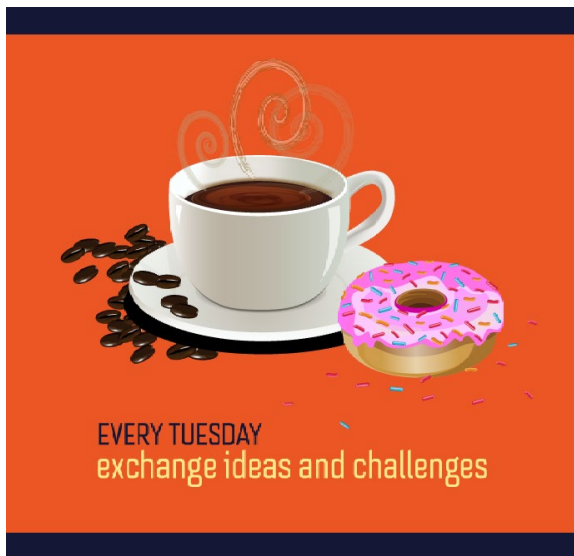
The goal of MASH is to create the world's largest nanofabrication, packaging, and characterization facility by linking and enhancing the facilities in the region. The MASH "distributed" network of facilities will support technology transition to manufacturing and offer redundancy of resources and immediate access to a huge amount of technical expertise in semiconductors.

Read more about the hub in the digital booklet:

[DIGITAL BOOKLET](#)



Millennium Café Returns January 30!



Join us on Tuesday, January 30

10:00 AM ET

3rd Floor Commons

Millennium Science Complex

TALK:

"Be the Change – Start Running a More Sustainable Research Lab"

TALK:

"Will Bees Like It Here?"

[Café Talk Details](#)



INDUSTRY OPEN HOUSE - February 20



INDUSTRY OPEN HOUSE

Join us on Tuesday, February 20

4:00 PM - 6:00 PM ET

3rd Floor Commons

Millennium Science Complex

You are invited to join Penn State's Materials Research Institute and Institute of Energy and the Environment for a **happy-hour networking event**. During the event, you'll have the opportunity to **talk informally with the core facility staff** about your materials-related testing, fabrication, and synthesis needs.

[Details & Registration](#)

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University Park, PA 16802

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