Singapore and Korean Researchers De Semiconductor Wafer Technique

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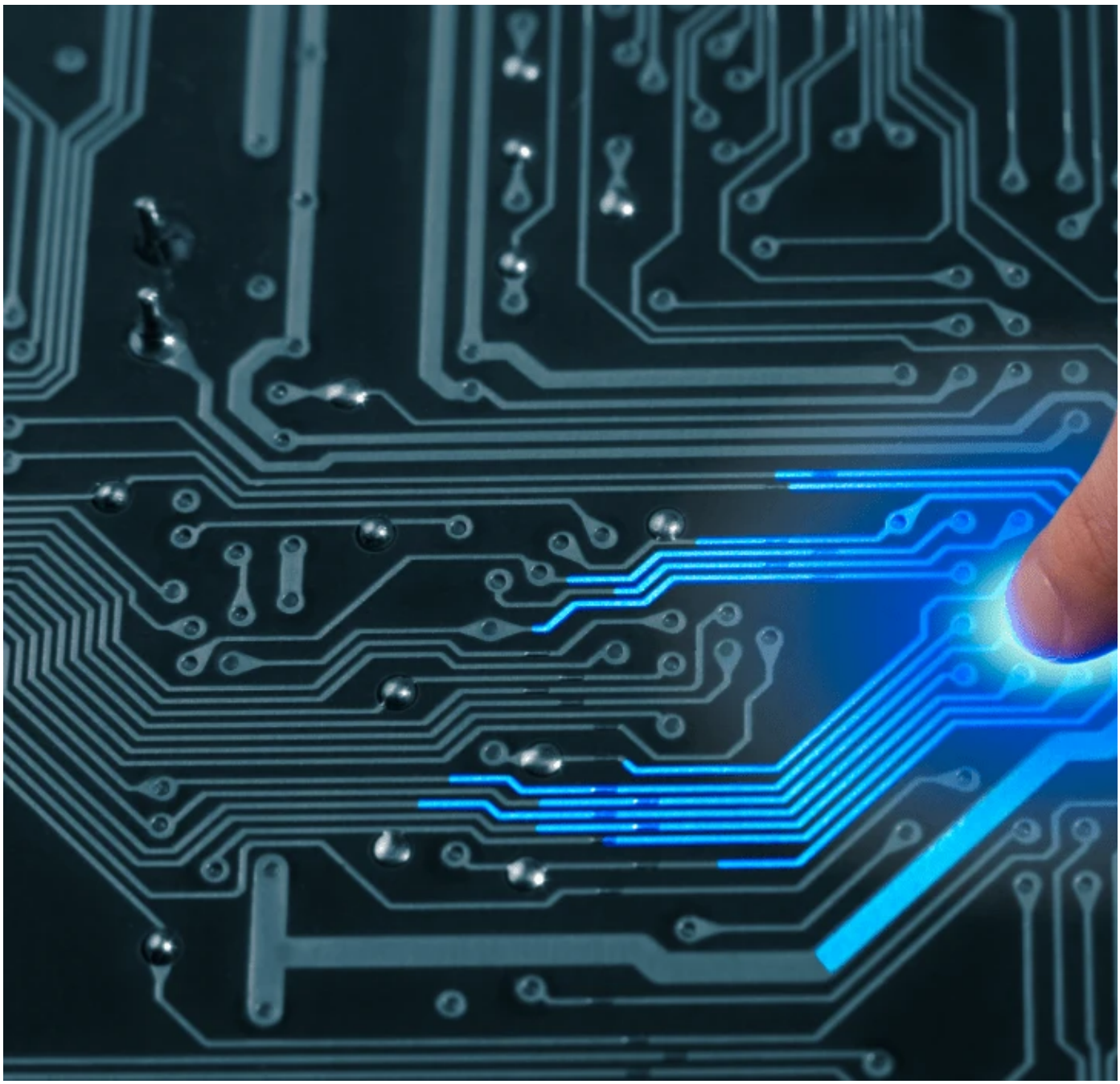

Scientists from Nanyang Technological University (NTU) Singapore and Korea Institute of Ma releases/946553) a technique to create a highly uniform and scalable semiconductor wafer. The j

This is the first of its kind – an innovation that could pave the way to higher cup yield, more cos chip shortage. A shortage in the supply of semiconductors first hit the automotive industry durin disruption. The shortage can be traced back to the first half of 2020 when overall consumer dem manufacturers to shift their focus to other areas, such as computer equipment and mobile device

Semiconductor chips commonly found in smartphones and computers are difficult and complex to manufacture. Their fabrication is typically done on silicon wafers and then diced into the sma

However, the process is imperfect and not all chips from the same wafer work or operate as desi while increasing the production costs. Traditionally, nano transfer-based printing has not been ac human health hazards due to the use of a chemical adhesive layer.

In their study, the research team from KIMM and NTU reported that their chemical-free printing (nanostructures in cylindrical form) that were highly uniform and scalable. Their process incorp contrast on surfaces to make nanostructures visible. Plus, the end-product semiconductor also de the market. Moreover, the fabrication method is also fast and leads to a high chip yield.

In short, the team of NTU and researchers developed a new chemical-free nano transfer printing nanostructure layers onto a Silicon (Si) substrate at low temperatures (160 °C) to form a highly u thickness during fabrication.

This industrial compatible technique allows a wafer to be fabricated quickly and uniformly at sc is almost defect-free, meaning that little to no chips are discarded due to poor performance.

In lab tests, the joint research team was able to achieve more than 99 per cent yield transfer of a printable wafer size was limited to the laboratory setup, the KIMM-NTU team believes their tec mainstream wafer si in the current production lines of the biggest semiconductor chipmakers.

When the method was adopted to fabricate a six-inch wafer, results showed the printed layer ren commonly causes layers to separate) demonstrating the outstanding uniformity and stability of t semiconductor wafer technique produces far fewer defects, it can create far more efficiently a hi

NTU has long been a paragon of groundbreaking research and development for ICT. To a large c
transformation. As reported on OpenGov Asia, the university lent a hand in the fight (https://ope
19-viruses/) against COVID-19 by showing a better way to identify the virus.

The university has been contributing to the country in its quest for a robust digital economy. A g
singapore-launches-quantum-science-and-engineering-centre/) research on quantum chips pavin