

HP and NTU Singapore Officially Open Joint Corporate 3D Printing Lab

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This week, Nanyang Technological University ([NTU](#)) in Singapore officially opened the doors to a new corporate lab that will help manufacturing companies as they work towards adopting digital technology. This new lab, created through a

collaboration between the university and HP, will offer a digital manufacturing skills development program for Industry 4.0.



L-R: The HP-NTU Digital Manufacturing Corporate Lab was officially opened by NRF Singapore Executive Director Lim Tuang Liang; NTU Senior Vice President (Research) Prof. Lam Khin Yong; HP Inc CTO Shane Wall; and HP Inc Chief Technologist, Print, Glen Hopkins.

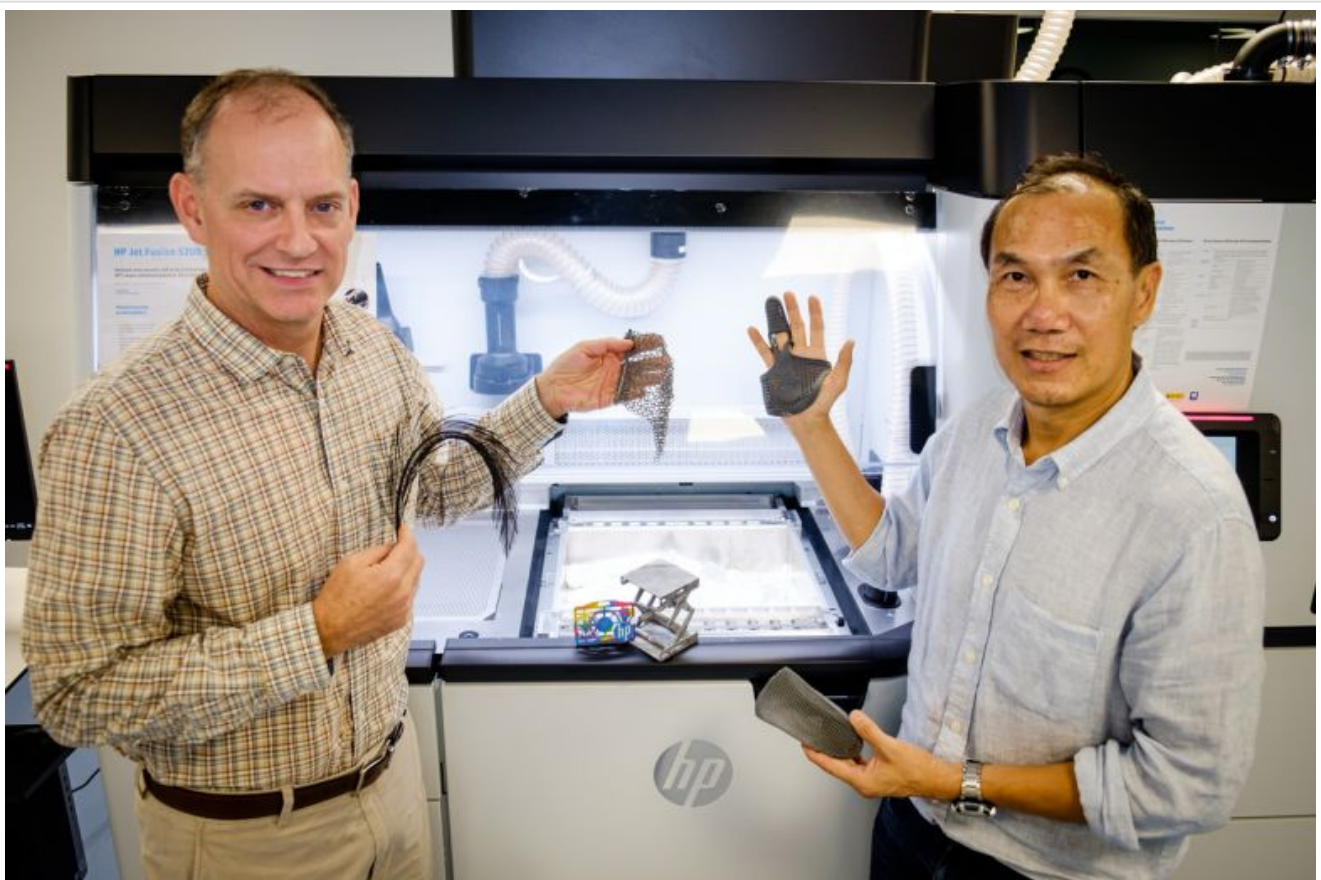
The facility has been dubbed the HP-NTU Digital Manufacturing Corporate Lab, and features a variety of technologies, such as supply chain models that enable faster time to market and intelligent design software tools that automate advanced customization, that will help make manufacturing operations more cost-effective, efficient, and sustainable. Members of tomorrow's workforce can then become better equipped for work in the future manufacturing industry.

The partnership between the university, HP, and the National Research Foundation Singapore (NRF) was [first announced](#) last October, and this new facility is HP's first university laboratory collaboration in Asia. Using the lab's intelligent design software tools, engineers will be better able to customize and optimize the mechanical properties of their materials, while the automated technology will allow for designs that use the best combination of these properties so the resulting 3D printed parts have the necessary flexibility, strength, and weight. Then, manufacturers can rapidly scale production of custom goods even when the demand is high.

“HP’s passion for innovation, together with NTU’s world-class research capabilities, allow us to achieve new breakthroughs and unlock new solutions for both business and society,” [said](#) Shane Wall, Head of HP Labs and the company’s CTO.

One of NTU and HP’s joint goals is to recruit 100 researchers to work in the new lab, which already employs 60, in order to create new and innovative products. One current research project taking place there is focused on designing and optimizing end-to-end supply chain operations, so that manufacturers can use better business models and analytics to reduce how much time is needed to find parts that may be good candidates for fabricating with 3D printing, and also better measure their impact on the world’s carbon footprint.

This proof-of-concept project, and others, were presented at the opening of the HP-NTU Digital Manufacturing Corporate Lab, along with several technology demonstrations. Additionally, the grand opening was part of HP’s anniversary celebration of 50 years of growing its business in Singapore,



NTU Professor Tan Ming Jen and Dr. Mike Regan, co-directors of the HP-NTU Digital Manufacturing Corporate Lab, holding up 3D printed products from the HP Multi Jet Fusion 3D printer.

In conjunction with opening the new lab, NTU and HP worked together to create six SkillsFuture courses for manufacturing professionals.

“Our joint work in 3D printing, artificial intelligence (AI), machine learning, security and sustainability will produce disruptive technologies that define the future of manufacturing,” stated Wall. “Working together, we can create the workforce of the future and ensure the fourth Industrial Revolution is also a sustainable revolution.”

The skills development program will offer training in additive manufacturing and digital design under SkillsFuture, covering topics like AM fundamentals, automation, user experience, digital product designs, business models, and data management. About 120 workers each year can participate in these courses.

“The advanced technologies and automation solutions jointly developed by NTU and HP are expected to impact businesses in Singapore and beyond, as these innovations are geared towards efficiency, productivity and most importantly, sustainability,” said Professor Lam Khin Yong, NTU’s Senior Vice President of research.



“The new SkillsFuture courses developed jointly with HP also bring valuable industrial perspectives to help upskill and train a critical talent pool for Singapore.

“This will support the country’s drive towards becoming a smart nation as it faces the challenges of the fourth Industrial Revolution.”