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MEDIA RELEASE

**ISDN Holdings to Commercialise A*STAR SIMTech's
Laser-Aided Additive Manufacturing Technology**

Singapore, 1 April 2019 – ISDN Holdings Limited (“ISDN”) teamed up with A*STAR’s Singapore Institute of Manufacturing Technology (**SIMTech**) to commercialise a laser-aided 3D printing technology for the fabrication of corrosion-resistant metal structures and components for heavy industries such as aerospace, oil and gas, and offshore and marine.

The laser-aided additive manufacturing (“**LAAM**”) system, developed by a team of SIMTech researchers, led by Dr Bi Gui Jun, incorporates a heat source – in the form of a high-power laser beam – into 3D printing to create full-scale metal parts that are highly durable.

In additive manufacturing, more commonly known as 3D printing, objects are first digitally defined using a design software. With LAAM, metal powders/wires are melted by a laser beam and deposited layer by layer onto a metallic substrate, fusing together to form a fully functional metal structure.

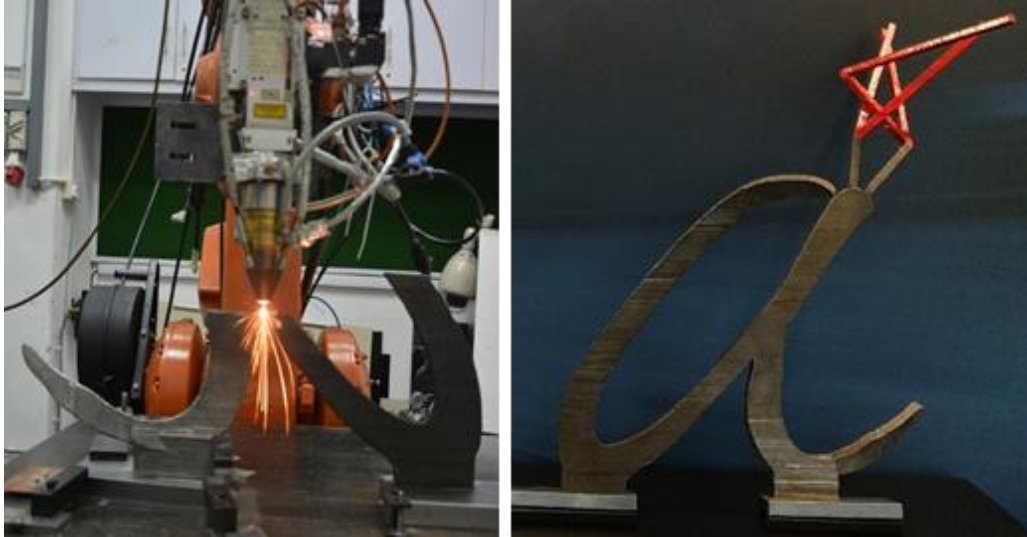
LAAM is much more dynamic than conventional machining as it can design and produce complex metal components without the need for traditional intermediate steps or special tooling. This facilitates rapid manufacturing and reduces production lead-time.

ISDN and SIMTech will jointly set up a laboratory to commercialise the production technique in Singapore. Over a three-year period, both parties will work together to develop a hybrid LAAM system for fabricating complex 3D structural parts. They will also come up with the relevant industry-wide production processes as well as methodologies to evaluate the quality of metal parts created using LAAM.

Mr Teo Cher Koon, ISDN’s Managing Director and President, said: “As a motion-control engineering specialist, we are delighted to be able to play a role in driving the mass adoption of LAAM technology in Singapore. This advanced manufacturing technique not only allows for the fabrication of complex designs that may be too expensive or too challenging for conventional machining, it also lengthens the shelf life of metal structures and components. We believe LAAM will go a long way in supporting various heavy industries in Singapore.”

Dr Lim Ser Yong, Executive Director, SIMTech, said: “As a research institute with the mission to enhance the competitiveness of Singapore’s manufacturing industry, we have collaborated

extensively with companies to transfer technology through commercialisation. This partnership helps to build a strong local ecosystem with technologies and capabilities in 3D Additive Manufacturing to fabricate parts and products with innovative design features which are not possible with conventional manufacturing technology.”



LAAM in progress and printed A*STAR logo

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About ISDN Holdings Limited

Founded on its precision and motion control engineering capabilities in 1986 and listed on the Main Board of the Singapore Exchange Securities Trading Limited since 2005, ISDN Holdings Limited has today transformed into a multi-industry corporation with more than 60 offices spanning key Asian growth markets. ISDN is also listed on the Main Board of the Stock Exchange of Hong Kong Limited since 12 January 2017.

ISDN is dominant in the niche areas of motion control, other engineering solutions and industrial computing. ISDN’s customised engineering solutions cater to different industrial sectors including medical, robotics, factory automation, energy, manufacturing, hard disk and semiconductor industries. By leveraging its alliances with strategic partners in Europe and Asia, ISDN is able to combine and thereupon benefit from the best-in-class technology and business systems these collaborations have to offer.

For more information, please visit www.isdnholdings.com

About the Agency for Science, Technology and Research

The Agency for Science, Technology and Research (A*STAR) is Singapore's lead public sector agency that spearheads economic oriented research to advance scientific discovery and develop innovative technology. Through open innovation, we collaborate with our partners in both the public and private sectors to benefit society.

As a science and technology organisation, A*STAR bridges the gap between academia and industry. Our research creates economic growth and jobs for Singapore, and enhances lives by contributing to societal benefits such as improving outcomes in healthcare, urban living, and sustainability.

We play a key role in nurturing and developing a diversity of talent and leaders in our Agency and research entities, the wider research community and industry. A*STAR's R&D activities span biomedical sciences and physical sciences and engineering, with research entities primarily located in Biopolis and Fusionopolis. For more information, please visit www.a-star.edu.sg

About Singapore Institute of Manufacturing Technology (SIMTech)

The Singapore Institute of Manufacturing Technology (SIMTech) develops high-value manufacturing technology and human capital to contribute to the competitiveness of the Singapore industry. It collaborates with multinational and local companies in the precision engineering, medical technology, aerospace, automotive, marine, oil & gas, electronics, semiconductor, logistics and other sectors.

SIMTech is a research institute of the Science and Engineering Research Council (SERC) of the Agency for Science, Technology and Research (A*STAR). With a pool of more than 450 researchers, we are committed to serving the manufacturing industry to develop the human, intellectual and industrial capital in Singapore.

For more information, please visit: www.SIMTech.a-star.edu.sg

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