

ABOUT GINTIC INSTITUTE OF MANUFACTURING TECHNOLOGY

Gintic Institute of Manufacturing Technology is Singapore's national applied research and development (R&D) institute funded by the Agency for Science, Technology and Research (A*STAR). It is the sole national organisation engaged in improving Singapore's manufacturing technologies across all sectors of industries. Its role is:

- To carry out applied R&D in strategic processes and technologies to propel Singapore's industries into the future;
- To upgrade Singapore-based companies, thereby enhancing their competitiveness;
- To bridge the technology gap that Singapore's small and medium-sized enterprises face in their business partnerships with multinational corporations ; and
- To transfer applied-research technologies to Singapore-based industries through training and staff transfers.

Gintic, comprising over 350 full-time researchers and specialists, has built up considerable capabilities in the following technology areas: *Automation Technology, Manufacturing Information Technology, and Process Technology*. The institute has completed close to 660 projects for about 400 companies, an affirmation of its success in collaborating with industries.

To expand its resources and to benchmark its R&D activities against world-class institutes, Gintic continued working with prestigious international and local research organisations on collaborative research programmes in Asia, Europe and the United States. The institute set up a Research Liaison office to examine the best way to utilise external resources to carry out collaborative research programmes.

Tour of Automation Technology Division laboratories

The Automation Technology Division has six research groups: Automated Material Processing, Advanced Mechatronics Systems, Communication and Control, Logistics Control and Integration, Machine Vision and Sensors, and Photonics Systems. The tour of Gintic will cover the AT division research laboratories and visitors will be able to see the facilities and some of ongoing research activities. The technical tour also provides an excellent opportunity for the conference participants to interact with Gintic researchers who are tasked to bridge the gap between the academic research and industrial applications.

Highlights of the tour will include advanced robotic applications: aircraft canopy polishing; mobile robots; re-configurable modular robots; telepresent manipulation; 3D superalloy finishing; adaptive CNC for processing unknown surfaces; wafer bump inspection; confocal scanning microscope; liquid signature analysis system; photonic communication technologies; simulation and control code generator; SECS/GEM interface; WAP, SMS and Bluetooth based systems.