

Brief introduction



As the high-end equipment serves in more scenarios and working conditions, industrial robots, improved signal/image processing, and advanced non-destructive evaluation are now deeply involved in inspection processes, where robotic inspection systems can improve efficiency and reduce risks of safety hazards to inspectors. In addition, compared with traditional manual inspection, it can be operated with high-precision movements, especially on structures with complex surfaces. With the optimization of industrial robot performance and intelligent mechanical controls, it is possible to implement customized and automated inspection.

In this proposal, we present a topic for the special inspection equipment and system integrated in robots including the novel electromagnetic, acoustic and optical sensing systems, the NDT equipment, the inspection ROV or AUV, the inspection system integrated in robots, etc. This topic on special inspection equipment and systems focuses on specific aspects of robotic integrated systems, including motion control of the inspection process, a synergy between hardware and software, the balance between equipment cost and inspection efficiency.

Topics Interested topics include (but not limited to):

- Advanced automatic inspection methodology
- Inspection systems integrated in robots for rail transportation
- Intelligent Inspection equipment and automatic testing system
- Novel sensors and sensing system
- Nondestructive testing (NDT) technique and equipment
- Remote operated vehicle (ROV) or Autonomous Underwater Vehicle (AUV) for inspection

Track Chairs and Co-chairs:

Yan Lyu, Beijing University of Technology, China Xian Guo, Nankai University, China Xin'an Yuan, China University of Petroleum (East China), China

Track TPC Members

Xuan Zhu, The University of Utah, US Fan Shi, The Hong Kong University of Science and Technology, China Xiaolei Qu, Beihang University, China Jiuhao Ge, Nanjing University of Aeronautics and Astronautics, China

Co-sponsord by

