

LSP International Symposium Aichi, Japan - Nov 20, 2025 - Registration Now Open

- Knowledge Hub Aichi Priority Research Project, Phase V Symposium-

Overview: The Knowledge Hub Aichi Priority Research Project, Phase V was launched in June 2025 to address key technological challenges faced by industries in Aichi, Japan. As part of this initiative, we are pleased to announce an International Symposium on the Development and Application of Automated Laser Peening Technology for 3D Structures, which will introduce the project's objectives, technical innovations, and future plans.

The symposium will focus on the current status and future prospects of Laser Shock Peening (LSP), featuring lectures and discussions by leading researchers and engineers. The program will include technical sessions, a demonstration of a compact LSP system, a networking session, and a guided tour of the Aichi Synchrotron Radiation Center.

Through presentations and discussions by distinguished experts from around the world, the symposium will provide the latest insights and perspectives on the advancement of LSP technology. We look forward to your participation.

(Note: LSP is an advanced surface treatment technique in which short-pulse laser irradiation induces compressive residual stress on metal surfaces, thereby improving fatigue life and enabling lightweight design. A 2D code on the right links to an introductory video.)



Organizers: Aichi Prefecture, Aichi Science & Technology Foundation,
Nagoya Industrial Science Research Institute

Program:

12:00-	Open for registration
12:30- 12:40	Opening Remarks Dr. Yuji Sano, Researcher, Nagoya Industrial Science Research Institute / Professor, SANKEN, The University of Osaka (Japan)
12:40- 13:10	LSP Activities and Future Prospects in Japan Dr. Yuji Sano
13:10- 13:40	Characterization of Laser Peened Materials for Wide-Spread Applications Dr. Niroj Maharjan, Research Fellow, Space Technology and Industry Institute, Swinburne University of Technology (Germany)
13:40- 14:10	Advanced Use of LSP to Enhance the Integrity of Structural Component Dr. Nicolai Kashaev, Department Head, Laser Processing and Structural Assessment, Helmholtz-Zentrum Hereon (Germany)
	Break
14:20- 14:40	Live Demonstration of Portable LSP Equipment Nagoya Industrial Science Research Institute (Japan)
14:40- 15:10	Simultaneous Enhancement of Fatigue Strength and Biocompatibility of Ti-6Al-4V ELI by Low-energy Laser Peening Dr. Koichi Akita, Professor, Department of Mechanical Systems Engineering, Tokyo City University (Japan)
15:10- 15:40	Improvement of Fatigue Properties through Laser Peening Using Handheld Lasers Dr. Kiyotaka Masaki, Professor, Department of Mechanical Engineering, Saitama Institute of Technology (Japan)

15:40-16:10	An Investigation into the Influence of LSP-Induced Residual Stresses on Fatigue and Fatigue-Crack Propagation Dr. Dong Jun Lee, Senior Researcher, Aerospace Materials Center, Korea Institute of Materials Science (Korea)
16:10-16:40	The Role of LSP and LPF in the Aeronautical Industry and Expectations for the Aichi Project Dr. Domenico Furfari, Head, Manufacturing Process Simulation & Effect of Defects, Airbus Operations GmbH (Germany)
	Break & Moving to Aichi Synchrotron Radiation Center
17:00-17:30	Tour of Aichi Synchrotron Radiation Center Aichi Science & Technology Foundation (Japan)
17:30-18:30	Networking Session & Closing

(Note: All presentations will be given in English.)

Who Should Attend: Engineers, researchers, students, and professionals from the manufacturing industry who are interested in laser peening technology.

Participation Fee: Free of charge

Registration: Registration is available only via the **Peatix** website. Please register using the URL or 2D code below. The registration deadline is Monday, November 17, 2025, but registration will close once the maximum capacity of 50 participants has been reached.
 (Note: The symposium will also be live-streamed online for registered participants only. Those who wish to attend the symposium online are kindly requested to register in advance through the same Peatix link.)

<https://lp3d-workshop.peatix.com/view>



Venue & Access: Aichi Center for Industry and Science Technology
 1st Floor, Seminar Room (1267-1 Akiai, Yakusa-cho, Toyota City, Aichi, Japan)

By Public Transportation: Take the Linimo (Tobu Kyuryo Line) and get off at Toji-Shiryokan-Minami Station. The venue is located just north of the station.

By Car: From Nagoya direction, 3 km east from Nagakute IC on the Nagoya-Seto Expressway. From Toyota direction, 0.8 km west from Yakusa IC on the Sanage Green Road



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