



2025 GENERAL ASSEMBLY

Stockholm - Sweden

CIRP- 2025 -Dn-3

**SCIENTIFIC TECHNICAL COMMITTEE "Dn"
(DESIGN)**

Meeting to be held on Thursday, August 21, 2025
8.30 - 12.30

You are kindly invited to participate in the next DESIGN Scientific Technical Committee meeting to be held in Stockholm.

Draft Agenda

1. Opening, welcome, and introduction of invited guests (2 min)

Part A

2. Approval of the agenda (1 min)
3. Approval of the minutes of the last STC Dn meeting (1 min)
4. Matters arising (1 min)
5. CIRP Conferences (10 min)

CIRP Design Conference				
2025 T: report Patras (GR) D. Mourtzis	2026 T-1: progress Tokyo (JP) H. Komoto	2027 T-2: progress Aix-en-Provence (FR) L. Roucoules	2028 T-3: progress Linköping (SWE) T. Sakao	2029 T-4: proposal Soliciting proposals

CIRP Conference on Computer Aided Tolerancing				
	2026 T-1: progress Edmonton (CA) A.J. Qureshi		2028 T-3: progress Gothenburg (SWE) R. Söderberg	

6. Presentation, review, and discussion of keynote papers (60 min)
 - 2025 Dn Keynote – “*Developing and Leveraging Digital Twins in Engineering Design*” – N. Anwer, R. Stark, F. Tao, J.A. Erkoyuncu – Q&A Session (10 min).
 - 2026 Dn Keynote – “*Industrial Metaverse for Future Factory Design and Operations*” – D. Mourtzis, L.Wang, G. Lanza, N. Anwer – Progress Report (15 min).
 - 2027 Dn Keynote – “*Generative Design in Additive Manufacturing: Methods, Tools and Applications*” – Y. Zhang, W. W. Wessel, D. Rosen, A. Bernard – Progress Report (15 min).
 - 2028 Dn Keynote – Proposal and Voting (20 min).
7. CIRP Novel Topics in Production Engineering (15 min)

Break (30 min)

Part B

8. Observation from the STC Dn Officers (5 min)
9. Further actions for the STC Dn (20 min)

Part C

10. Technical Presentations (80 min):

8 minutes each, including 5 minutes for presentation and 3 minutes for Q&A.

- *Bio-inspired Generative Design for Mechanical Contact Interfaces under Time-Dependent Load* by Santiago Arroyave-Tobon (presenter), Jean-Marc Linares, David Hernandez-Aristizabal.
- *DFA-LEGO: Design for Assembly of Complex Microwave Waveguides as LEGO Bricks for Satellite Applications* by Nanya Li (presenter), Changkun Sun.
- *Harnessing the Randomness of Hierarchical Architected Materials through Bayesian Optimisation-Based Computational Design* by Yunlong Tang (presenter).
- *Lightweight Spinodal Structure Design and Optimization with Tunable Stiffness Distribution* by Ke Xu (presenter), Yingguang Li, Canhui Lin.
- *Geometric Specification and Verification for Free Form Surfaces, Current Practice and Future Prospective* by Mattia Maltauro (presenter), Bertrand Nicquevert, Roberto Meneghello, Gianmaria Concheri, Nabil Anwer.
- *An Agentic AI System for Automated Design FMEA* by Zhiguo Zeng (presenter), Jean Meunier-Pion, Anne Barros, Nabil Anwer.
- *LLM-Assisted Multi-Agent Frameworks for Design to Manufacturing Workflows in Mechanical Engineering* by Iñigo Flores Ituarte (presenter).
- *From Physical Delivery to Digital Delivery* by Fei Tao (presenter), Xin Ma, Li Yi.
- *Design for Regeneration: How to Adapt Design to the New Directives on Waste* by Peggy Zwolinski (presenter), Daniel Brissaud

Part D

11. Other business
12. Announcement of Officer Election Result (15 min)
13. Closure