

18th IFAC Symposium on Information Control Problems in Manufacturing (INCOM 2024)
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Open Invited Track - Proposal

CHallenges to human–machine collaboration for SUstainable Production (CHASUP'24)

Organized by:

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IFAC TC5.2 "Management and Control in Manufacturing and Logistics".

Considering the new role played by humans working and cooperating with machines and robots, production is shifting towards the improvement of reliability of production systems, usage of artificial intelligence and creating sustainable society. Therefore, the successful implementation of Human-Machine Collaboration (HMC) for Sustainable Production is not without its challenges. Starting from ethical issues, through new technologies into production systems' implementation, that guarantee workplace safety and human well-being, harmony and trust, we can pave the way for effective strategies of HMC development while ensuring equitable and sustainable outcomes for manufacturing, society and the environment. So, the following key challenges that arise when integrating HMC into production environments and explore their implications for sustainable production will be covered in this session: technological integration into the production environment, employee's adaptability to work with new technologies, effective collaboration-communication channels, ethical issues, scalability and customization of the sustainable production.

Authors are invited to submit full papers describing original research work associated with challenges to HMC for sustainable production related problems in areas including, but not limited to:

- Cyber-Physical manufacturing processes,
- Human-machine Collaboration,
- Algorithms and Methods for Automated Data Acquisition,
- Smart technologies for adaptive manufacturing,
- Computational Intelligence Methods and Application,
- Workforce Adaptation and Training,
- Trust and Acceptance,

- Ethical issues in human-machine collaboration,
- Sustainable development and eco-friendly production.

Both theoretical and applied research contributions are welcome.

Submission

For authors guidelines please refer to <https://www.ifac-control.org/conferences/author-guide>. All manuscripts must be electronically submitted through the PaperPlaza Conference Manuscript Management System at: <https://ifac.papercept.net>. Please use the official IFAC instructions and template to prepare your contribution. Regular papers must be between 4 (minimum) and 6 (maximum) pages in the final version. Submissions details are available on the conference website: <https://www.incom2024.org/>. All submission must be written in English. **Please submit your contribution online by 31.01.2024.** All papers that comply with the submission guidelines will be peer-reviewed by IPC members. The corresponding author submits the paper online (pdf format) as an Open Invited Track paper. Submissions as an invited paper requires the Open Invited Track code: **t4x7w**.

Important dates

- Draft paper submission deadline: 31.01.2024
- Notification of acceptance: 15.03.2024
- Final paper submission deadline: 15.04.2024
- Young Author Award Nomination: 15.05.2024
- Conference date: 28-30.08.2024
- Early Registration: 30.04.2024
- Late Registration: 31.07.2024