Dear friends and partners,

It is our great pleasure to invite you to join us at the Fifth Conference on Maintenance, Condition Monitoring and Diagnostics, MCMD 2020, which will take place on 15 – 17 December 2020 in Oulu, Finland. The background of this conference series is in the 20-years history of MCMD conferences and the 10-years history of International Society of Condition Monitoring, ISCM. The conference is organized by University of Oulu and Expomark Oy in cooperation with ISCM and Finnish Maintenance Society, Promaint. The Original Sokos Hotel Arina Conference Center in the middle of the city serves as the venue.

The MCMD 2020 provides a forum where condition monitoring and risk management professionals from industry and science exchange knowledge, experiences and strengthen multidisciplinary network. On the stage, visions are presented and shared with old and new colleagues. The conference focuses on the latest developments in maintenance and monitoring especially in the process and energy industries. Central themes include condition monitoring and diagnostics as factors improving productivity, quality and operational reliability increasing profitability and reducing environmental load of industrial processes. The program includes invited talks, parallel, special and poster sessions, exhibition and technical tours. All accepted full scientific papers are going to be published in the conference proceedings Lecture Notes in Mechanical Engineering (LNME) by Springer. Industrial, discussion and student papers and all extended abstracts will be published by Promaint.

We are inviting you to submit your contribution to the high standard international condition monitoring and maintenance conference.

Please visit http://www.intiscm.org for further information.

We look forward to meeting you in Oulu on December 2020!

Esko Juuso, MCMD 2020 Chair
Mika Ruusunen, IPC Chair
Jaakko Tennilä, NOC Chair

Key dates

**Thematic session proposals and short abstracts**
- Proposals with short abstracts: May 31, 2020
- Notification of acceptance: June 15, 2020

**Full Scientific and Industrial Contributions**
- Extended abstracts: May 31, 2020
- Notification of acceptance: June 15, 2020
- Full draft paper submission: July 27, 2020
- Notification of acceptance: September 1, 2020
- Final camera-ready manuscripts: October 30, 2020

**Discussion and Student Contributions**
- Short abstracts: July 10, 2020
- Notification of acceptance: July 27, 2020
- Short draft paper submission: September 1, 2020
- Notification of acceptance: September 30, 2020
- Final camera-ready short papers: October 30, 2020

**Industrial Extended Abstract Contributions**
- Short abstracts: May 31, 2020
- Notification of acceptance: June 15, 2020
- Draft extended abstract: July 27, 2020
- Notification of acceptance: September 1, 2020
- Final extended abstract: November 5, 2020

**Author registration**: October 30, 2020

**MCMD 2020 Conference**: December 15 – 17, 2020

MCMD 2020 Secretariat
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Areas of Interest

Papers from authors with academic and/or industrial affiliation are encouraged. Topics are focused but not limited to:

Condition monitoring (CM)
- CM in process industry
- Structural health monitoring
- CM of vehicles
- CM in energy production and energy conservation
- Signal processing for CM
- Advanced reasoning and diagnostic methods in CM
- Sensor technologies
- IoT and AI in CM
- Prognostics and CM

Maintenance
- Efficiency, effectiveness, productivity
- Life cycle cost optimization
- Quality, risk and maintenance services
- Maintenance management systems
- E-maintenance
- Maintenance tools and innovations
- Performance measurements
- Safety and maintenance

Maintenance trends
- Novel technologies
- Maintenance applications of mobile robot technologies
- Environmental impacts of maintenance technologies
- Energy conservation via maintenance
- Augmented Reality and Mixed Reality applications in maintenance
- On-line maintenance

Exhibition and tutorials

Exhibition area is available for presenting products and services. The program includes vendor sessions to give short presentations for wide audience. Tutorials provide an additional option for longer presentations. Please visit the conference website for further information and registration for exhibition and tutorials.

Technical visits and social tours

Technical visit will be organized by Expomark. Links will be provided for social tours arranged by service providers.

Submissions

Five types of contributions can be offered to the MCMD 2020 conference:

- **Scientific papers** must be written in English and will be accepted for presentation based on a peer review of the draft papers. The peer-reviewed conference articles planned to be published in Lecture Notes in Mechanical Engineering (LNME) by Springer.
- **Industrial papers** can be submitted as scientific papers. Additionally, industrial papers written in English, Finnish or Swedish can be submitted as full papers to be reviewed for publication in the conference proceedings published by Finnish Maintenance Society, Promaint. Interesting case reports are welcomed as well.
- **Extended abstracts**: The presentation at the conference can also be accepted on the basis of extended abstracts without a full paper. Extended abstracts will be published by Promaint.
- **Short papers**: Student/Discussion papers should follow the writing guidelines of scientific papers when applicable. The final guidelines will be available in review phase. Selected short papers will be published by journals of Promaint, https://www.promaint.net/.
- **Posters**: Submissions are accompanied with short papers or extended abstracts.

EasyChair is used for submissions of all abstracts, extended abstracts, industry papers and short papers (discussion & student). Please follow the link https://easychair.org/conferences/?conf=mcmd2020.

Springer is planned to be used for scientific papers whose extended abstracts have been accepted at EasyChair. The link will announced later. The final manuscripts of industry papers and short papers as well as all final extended abstracts will be handled in EasyChair.

Scientific advisory committee

- Adjunct prof [Esko Juuso](mailto:eskjuuso@oulu.fi) (chair), University of Oulu, Finland
- Prof[ Diego Galar](mailto:diego.galar@lut.fi), Luleå University of Technology, Sweden
- Prof[ Mika Ruusunen](mailto:mika.ruusunen@oulu.fi), University of Oulu, Finland
- Prof[ Jens Strackeljan](mailto:jenstr@uni-magdeburg.de), Otto von Guericke University Magdeburg, Germany
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- Prof emeritus [Sulo Lahdelma](mailto:sulo.lahdelma@oulu.fi), University of Oulu, Finland
- Dr [Renata Klein](mailto:renata.klein@ben-gurion.ac.il), Ben-Gurion University of the Negev, Israel
- Dr [Suri Ganeriwala](mailto:suri.ganeriwala@spectrquest.com), SpectraQuest, USA
- Mr [Konsta Karioja](mailto:konsta.karioja@oulu.fi), University of Oulu, Finland

Venue

The MCMD 2020 will be organized in the very centre of the Oulu City at conference facilities of Original Sokos Hotel Arina, address: the 4th floor of the Valkea shopping centre, Isokatu 25, 90100 Oulu.

Oulu, the Capital of Northern Scandinavia is located on the coast of the Gulf of Bothnia, 220 kilometers south of the Arctic Circle and Lapland. Oulu is a vibrant research community with a population of over 200 000 inhabitants. It offers a combination of a charming small city, an urban centre and a dynamic international science university which creates innovation for the future, well-being, and knowledge through research and education. The University of Oulu, founded in 1958, is with 13 000 students and 2900 employees strong one of the biggest and the most multidisciplinary universities in Finland. Oulu has been awarded as the most intelligent community in Europe 2012.

BusinessOulu offers links to growth-oriented companies with competitive operating environments, partnerships networks and business services, see [https://www.businessoulu.com/en](https://www.businessoulu.com/en).

How to get

There are good flight connections to Oulu from all over the world via Helsinki. Several only one hour flights per day between Oulu and Helsinki are operated by:


Oulu has frequent Pendolino and InterCity train connections from Helsinki and Tampere, see [https://www.vr.fi/cs/vr/en/frontpage](https://www.vr.fi/cs/vr/en/frontpage).