

**Special session on “Materials management- from linear to circular business models ”
for IFAC MIM 2019**

Identification code XXX

IFAC MIM 2019, August 28-30, 2019, Berlin, Germany

<https://ifac.papercept.net/>

Session Chairs:

- Prof. Dr. Pawel Pawlewski, Poznan University of Technology, POLAND
- Dr. Paulina Golinska-Dawson, Poznan University of Technology, POLAND

The current shift from traditional linear production to circular economy business model encourages closing of the materials loop in the supply chain by recovery of products and materials. On the other hand also the traditional linear production model might benefit from more conservative use of the resources by increasing the material efficiency.

The traditional understanding of the materials management covers issues related to sourcing, materials requirements planning and control (including inventory management and replenishment policy), handling the materials through a manufacturing process and distributing the products to customers. The shifts toward more environmentally-friendly and socially-responsible practices force the decision makers to extend the traditional understanding of material management concept by adding the broad scope of issues related to reverse logistics and products recovery .

This session combines two perspective on the materials management namely internal perspective (which reflects the materials flow through the manufacturing process) and external perspective (supply chain).

This session aims to simulate discussion on the methods and tools which may be use to improve the materials management in intralogistics and a supply chain. This session summarizes the recent developments in the field of materials management with regard to the challenges of implementation of the sustainability and circular economy polices. The focus will be place on the operational perspective. Interdisciplinary quantitative and qualitative methods and tools are encouraged.

The session invites high-quality submissions both from practitioners presenting real case studies and from the Academia.

Session topics:

The session chairs invite scientists, engineers and decision makers from government and industry to contribute theoretical and applied research papers in areas including but not limited to the following topics:

- Sustainable materials management,
- Flow of materials- simulation and modelling,
- Intralogistics solutions for improvement of materials flow in a company
- Materials efficiency
- Closing materials loop in a supply chain
- Recovery scenarios for products (remanufacturing, reuse, recycling etc.)

Submission

For author guidelines, please refer to **www.ifac-control.org**. All papers must be submitted electronically using Symposium Manuscript Management System (CMMS). All papers must be prepared in a two-column format in accordance with the IFAC manuscript style. Please use the official IFAC instructions and template to prepare your contribution as full-length draft paper and submit it online by December 15, 2018. Submission details are available on the symposium website. All submissions must be written in English. All papers that conform to submission guidelines will be peer-reviewed by IPC members. The corresponding author submits the paper online (pdf format) as **an invited session paper**. Submission as an invited paper requires the **invited session code XXX**. Several international journals are associated with the MIM 2019 for publication of special issues.

Important dates:

December 15, 2018 Deadline for the submission

February 20, 2019 Notification of acceptance/rejection

March 15, 2019 Deadline for the final submission