The 2018 IFAC Symposium on Information Control Problems in Manufacturing (INCOM 2018) represents the 16th event in the rich tradition of triennial IFAC events in manufacturing sciences and information technologies. The symposium will be held in Bergamo (Italy) from 11th to 13th June 2018. Recent editions of the symposium were held in Ottawa (2015), Bucharest (2012), Moscow (2009), Saint Etienne (2006) and Salvador de Bahia (2004).

IFAC is the International Federation of Automatic Control founded in September 1957. The multinational federation promotes the science and technology of systems theory and automatic control in diverse systems – from engineering, biological, social to economic systems – while maintaining the highest technical level of scientific excellence.

In the frame of IFAC scientific events, INCOM 2018 is the main symposium organised by IFAC CC5 – Coordinating Committee on Manufacturing and Logistics Systems with the main sponsorship of IFAC Technical Committees 5.1, 5.2, 5.3 and 5.4 and co-sponsorship of IFAC Technical Committees 1.3, 4.2, 4.3 and 9.2, several chapters of IEEE Italy Section, IFIP and IFORS and other distinguished Scientific Societies.

The general theme of INCOM 2018 is Information Control for Responsive Manufacturing Systems. In an economic world of volatile markets and changing global networks, manufacturers are experiencing a fierce pressure to cope with erratic market demands for highly customized products and quick delivery, while maintaining cost-effectiveness. Furthermore, the competitive pressure requires actions to sustain the business by means of a quick integration of technological innovation in manufacturing.

The true capability to achieve such a responsiveness depends substantially on the progress in advanced technologies and innovative methodologies at all levels of design, manufacturing and control of the industrial infrastructure.

INCOM 2018 aims to provide a context facilitating the knowledge exchange, the review and discussion of theoretical advances, research results, and industrial experiences, among scientists, researchers, decision makers, practitioners and students.

Authors from academia and industry are encouraged to join the event and share their research results and empirical insights focusing on one of the following themes:

- Advanced manufacturing technologies and systems;
- Advanced reliability, maintenance and safety engineering and technologies;
- Enterprise modelling and information systems;
- Modelling, control and optimization of complex engineered systems;
- Simulation, control and monitoring of evolutionary and adaptive production systems;
- Robotics and autonomous systems;
- Operations management in production systems and logistics;
- Human and social factors in production systems;
- Lifecycle management, product-service systems and technologies;
- Industry 4.0: strategies, models and technologies for next-generation production systems.

The IPC of INCOM2018 may screen presented papers with the purpose of recommending the authors to consider significantly extended versions in one of the IFAC Journals (Annual Reviews in Control, Control Engineering Practice, Journal of Systems and Control, Mechatronics, Nonlinear Analysis: Hybrid Systems), Journal of Intelligent Manufacturing Systems, International Journal of Production Research.

The conference will be held in the magnificent venue of Bergamo, known as “The Beautiful City” in the mid of the northern heart of Italy, a tremendous mix of history and modernity. The old medieval structure of the town is still intact with narrow streets, tall houses with picturesque windows and doors, and secret passages, within the old Venetian walls.

Since its foundation, Bergamo has been home of numerous famous artists and musicians, from Michelangelo “Il Caravaggio” to Gaetano Donizetti. Bergamo is easily accessible, being connected to three international airports: Bergamo Orio al Serio, Milano Malpensa and Milano Linate.

Sergio Cavalieri
Conference Chair