**SS03: Advances in laser materials processing** (Prof. Abderrazak ELOUAFI & Ahmed CHEBAK, University of Quebec – Rimouski, Canada)

Because of the remarkable development made during the last decade, the laser technology is now considered as one of the most important manufacturing tool in many industrial sectors. Laser materials processing (LMP) becomes even dominant in industrial applications such as welding and cutting. However, despite the achieved progress, several issues related to laser-material interactions, multi-physical modeling and simulation as well as processes integration in the production lines remain to be addressed in order to reach the full potential of this technology. The proposed special session offers to engineers, researchers and students, who have a common interest in LMP, an opportunity for exchanging information on development and application of laser technology in the fields of manufacturing and materials processing and for exploring the challenges and future directions through the development of consistent and innovative industrial practices. Contributors are invited to submit original researches and review articles exploring various aspects of LMP. Potential topics include, but are not limited to laser welding and laser surface treatment (Experimental investigations, sensitivity study, advanced computational methods, 2D & 3D modeling/simulation, predictive modeling). LMP applications in a variety of industrial sectors are also welcomed.

