

Barbara Previtali received her Ph.D. degree in Manufacturing and Production System, from Politecnico di Milano in 2002. From 2001 to 2011 she has been Assistant Professor of Manufacturing and Production Systems, at the Department of Mechanical Engineering of the Politecnico di Milano. In 2011 she was appointed Associate Professor at the Mechanical Engineering Department of Politecnico di Milano, where she teaches at the Industrial Engineering and Design Schools.

At Politecnico di Milano Barbara Previtali leads the SITEC- Laboratory for Laser Applications of the Politecnico di Milano. At present she is member of the Italian Association for Manufacturing - AITeM and of Photonics21, the European Technology Platform for photonics.

Recently she has become the responsible of PromozioneL@ser, the group inside the AITeM association that collects Italian laser users in industry and academia.

Her main research interests include modelling, optimization and control of laser processes, with special interest in numerical modelling and experimental approaches of welding, heat treatment, micromachining and cladding laser processes by innovative laser sources, such as fiber and diode lasers.

On these research subjects, she is author and co-author of about 90 papers published in referred international journal (30), international conferences (60) and 2 international patents. The above described research lines have been generally developed on the basis of research programmes funded by national and international organisations as well as industry-driven activities.

She is the leader and co-leader of the research unit within the projects: "Original Advanced Manufacturing for Innovation in metal sheet forming - ORIGAMI, Regione Lombardia and MIUR 2012, "Development of high-performance barrels with innovative gradient coatings - DEBACOAT, FP7-SME-2012", "Laser Cladding for new cold and hot working dies - CLADIES, MANUNET ERA 2008".