
Editorial

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Biographical notes: Uday S. Dixit is serving as a Professor in the Department of Mechanical Engineering from the Indian Institute of Technology Guwahati. He received his MTech and PhD from the Indian Institute of Technology Kanpur, India and BE from the Indian Institute of Technology Roorkee, India. His research area includes mechatronics, plasticity, forming, machining, laser-based manufacturing, finite element modelling and optimisation. He has supervised nine PhD research scholars and 43 MTech students. He has published 98 journal and 98 conference papers. He has authored six books and 20 book chapters. He has edited three books and three conference proceedings.

Tuğrul Özel is a Professor of Industrial and Systems Engineering from the Rutgers University. He received his PhD in Mechanical Engineering from The Ohio State University in 1998. His current research interests include advanced manufacturing, machining modelling, laser powder bed fusion, mechatronics, control of manufacturing systems, and micro/nano manufacturing sciences. He is the author of three edited books and has advised six PhD, 14 MS graduates, and 12 visiting scholars. He has been the editor, guest editor, reviewer and editorial board member of nine international journals. He is a member of a scientific committee for over 30 international conferences. He has published over 150 refereed articles in international journals and conferences. His author citation index is 37.

1 Introduction

This special issue of the *International Journal of Mechatronics and Manufacturing Systems (IJMMS)* includes nine high quality research articles related to advances in laser-based manufacturing technologies. These technologies find applications of various continuous and pulsed lasers with a wide range of power, pulse energy, and wavelength characteristics in material forming, material removal, surface treatment and finishing, and additive manufacturing processes; more specifically pulsed laser-based polishing of metal

surfaces at micro scale, laser welding of dissimilar materials, laser forming of solid and porous materials, laser surface treatment, laser cutting of difficult-to-cut materials, laser micro-drilling, and laser metal deposition of wire or powder material feedstock.

The editors greatly acknowledge Inderscience publishers team for their professional support throughout the preparation of this special issue. Finally, the editors would like to thank all the authors and all the referees for their availability and their thorough evaluations of the papers appearing in this issue.