Editorial

Arvind Bhardwaj*, Vishal S. Sharma and Anish Sachdeva

Department of Industrial and Production Engineering,
Dr. B.R. Ambedkar National Institute of Technology,
Jalandhar, 144011, India
E-mail: bhardwaja@nitj.ac.in
E-mail: sharmavs@nitj.ac.in
E-mail: asachdeva@nitj.ac.in
*Corresponding author

J. Paulo Davim

Department of Mechanical Engineering,
University of Aveiro,
Campus Santiago, 3810-193 Aveiro, Portugal
E-mail: pdavim@ua.pt

Biographical notes: Arvind Bhardwaj completed his graduation in Mechanical Engineering and post-graduation in Production Engineering from Punjab University, Chandigarh, India. He completed his PhD in Mechanical Engineering from Kurukshetra University, India in 2005. After working in the automobile sector for one year, he joined the Dr. B.R. Ambedkar National Institute of Technology, Jalandhar, Punjab, India, where he is currently working as a Professor in the Department of Industrial and Production Engineering. He has contributed more than 50 papers at the national/international levels. His current area of interest includes technology transfer, product design and development, operations research and productivity engineering.

Vishal S. Sharma obtained his Bachelor in Production Engineering (with distinction) from Shivaji University, Kolhapur, India, in 1992 and Master in Production Engineering from Punjab University, Chandigarh, India in 1998. He received his Doctorate in Mechanical Engineering from Kurukshetra University, India in 2005. Further, he completed one year (2009–2010) post-doctoral fellowship from Ecole Nationale Supérieure d'Arts et Métiers (ENSAM), Cluny, France. He is currently working as an Associate Professor in the Department of Industrial and Production Engineering at Dr. B.R. Ambedkar National Institute of Technology Jalandhar (deemed University-Government of India), Punjab, India. He has three years of industrial and 14 years of teaching experience. He has contributed more than 40 number of research papers at the National/International levels in the area of machining, industrial automation and optimisation of production systems.

Anish Sachdeva received his Bachelor in Industrial Engineering from National Institute of Technology (Erstwhile, Regional Engineering College), Jalandhar, India in 1994 and PhD from Mechanical and Industrial Engineering Department, Indian Institute of Technology (IIT) Roorkee, India in 2008. Currently, he is an Assistant Professor in the Department of Industrial and

Production Engineering at National Institute of Technology, Jalandhar (deemed University-Government of India), Punjab, India. He has two years of industrial and 15 years of teaching experience. His areas of interest are manufacturing, reliability and maintenance engineering, modelling and simulation. He has published about 50 articles in journals and conferences.

J. Paulo Davim received his PhD in Mechanical Engineering from University of Porto in 1997 and the aggregation from University of Coimbra in 2005. Currently, he is Aggregate Professor in the Department of Mechanical Engineering of the University of Aveiro and Head of MACTRIB – Machining and Tribology Research Group. He has more than 25 years of teaching and research experience in manufacturing, materials and mechanical engineering with special emphasis in machining and tribology. He is editor of six international journals, guest editor, editorial board member, reviewer and scientific advisory for many international journals and conferences. He has also published more than 300 articles in journals and conferences (more than 150 articles in ISI Web Science, h-index 20).

This special issue on 'Machining: Challenges, Issues and Trends' is a detailed exposition of advance machining practices. The composites and hard-to-machine materials are widely used for aerospace, automotive, medical, defence and power generation applications. There is a great demand for economical and environment-friendly alternative methods to machine these materials. At the same time, there is a need to develop reliable models using advance-computing techniques in order to establish those alternative methods in industrial applications. This special issue includes contributions from industry and academia, on trends and developments in machining of hard-to-machine, composite and other industrial materials. It also includes the use of modelling techniques in machining.

The Conference on Production and Industrial Engineering (CPIE) conference series, from which this special issue has been derived, was started by the Department of Industrial and Production Engineering, Dr. B.R. Ambedkar National Institute of Technology, Jalandhar, India, in March 2007. CPIE 2010 could attract renowned academicians/researchers, noted industry representatives and the delegates from countries like Canada, UK, France, Australia, Iran, Egypt, Algeria, Bangladesh, Israel, Mauritius, Turkey and India.

The editors would like to express our gratitude towards all the authors for contributing their valuable articles. Finally, we would like to acknowledge the reviewers for their pain staking and time consuming effort in reviewing manuscripts and providing their thorough evaluations.