

Tentative Programme schedule

0800 - 1000	Registration		
1000 - 1100	Inaugural & Keynote Session : "Transformative Technologies: The Impact to Machining, Services and Business Models" Mr. Tim Shinbara, The Association for Manufacturing Technology, USA (AMT).		
1100 - 1130	Tea/Coffee		
Parallel Concurrent Sessions			
	Machining & Tools	Large Parts Manufacturing	Additive Manufacturing
1130 - 1210	Recent developments in Die & Mould machining, Makino Asia, Singapore	New features for large part machining, DMG Mori, Germany	Designing for Additive Manufacturing, Renishaw plc, UK
1210 - 1215	Change Over		
1215 - 1255	Connected Solution for Digital Machining, Sandvik Coromant, India	Dynamic roughing in Multi Axis machines, Mastercam, USA	Application of Additive Manufacturing in Tool Engineering, LMT Tools, Germany
1255 - 1400	Lunch		
1400 - 1440	Overcoming challenges in difficult - to - machine materials, Toshiba Machine, Japan	Improving dynamic efficiency and precision for large machines, Heidenhain, Germany	AM Process optimization & prediction of quality, MSC software, Germany
1440 - 1445	Change Over		
	Machining & Tools	Emerging Trends / R&D	Automation
1445 - 1525	Grinding process optimisation, Tyrolit, Austria	Damping in Machine and Cutting tools – A journey in search, Indian Institute of Technology, Kanpur, India	Adaptive automation, Liebherr, Germany
1525 - 1545	Tea/Coffee		
1545 - 1625	Laser roughing & adaptive grinding of super-hard tool materials, Agathon AG, Switzerland	Machine Tools with composite structures for improved dynamic response, Bharat Fritz Werner, India	Robotic automation solutions for fettling and de-flashing, Grind Master Machines, India
1625 - 1630	Change Over		
1630 - 1710	Machining difficult jobs by Ceramic Tools, Greenleaf Corporation, USA	Countering Thermal behaviour of machines, Indian Institute of Technology, Madras, India	Smart Gear manufacturing as a competitive edge, Gleason, USA

Participation invited from

Automotive, Auto components, Consumer durables, Machine tool, Tool rooms, Aerospace, Defence and Railway units, PSUs, Pumps & Valves, General Engg. and other manufacturing industries. Decision makers including CEOs, senior executives, practicing engineers, industry experts, R&D specialists and academia will immensely benefit from this seminar

REGISTRATION FEE

CATEGORY	REGISTRATION FEE PER DELEGATE	GROUP CONCESSION
IMTMA Members, Micro and Small Enterprises, Research & Educational Institutions, Individuals	Rs. 2500/-	Group Concession : A concession of Rs. 500 per delegate will be offered to companies nominating 3 or more delegates
All other Companies	Rs. 3000/-	

Note:

1. Add 18% GST
2. Micro and small enterprises companies must produce a valid certificate
3. Shuttle Bus service will be available from Bangalore city centre to BIEC (Seminar venue)

Registration for participation must be made online only.

To register online, log on to www.imtma.in/ismt

For details or any queries/clarifications during 'Online registration' process, please contact
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Visit IMTEX 2019

While the participants come to attend this International Seminar on 23 January 2019, it is a good opportunity to visit IMTEX 2019 exhibition scheduled at Bangalore International Exhibition Centre (BIEC) from 24-30 January 2019 and witness the latest technologies in metal cutting from reputed companies across the globe.

About IMTMA

Constituted in 1946, Indian Machine Tool Manufacturers' Association (IMTMA) is a single point of contact for the machine tool industry in India. The apex body of machine tool industry in the country, IMTMA has a membership of about 500 companies from both the public and private sectors, manufacturing a wide range of metal-cutting and metal-forming machines, accessories, cutting tools and other allied equipment. The Association has over the years deeply committed itself to focus on issues of productivity, quality, technology, new product development, design, customer satisfaction, etc. for enhancing competitiveness of the industry in both domestic and overseas markets. IMTMA is proactive in taking new initiatives to promote advancement of metalworking industry in India. IMTMA organises the prestigious IMTEX and Tooltech exhibition, where both Indian and overseas manufacturers showcase their metalworking machines, equipment and tools.



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Witness Global Trends in Machining Technologies !

 **8th INTERNATIONAL SEMINAR ON MACHINING TECHNOLOGIES**
23rd JANUARY 2019, BIEC, BANGALORE

"Powering Manufacturing Growth and Competitiveness"



BIEC Bangalore International Exhibition Centre



Indian Machine Tool Manufacturers' Association

Metal working industry is bracing for new challenges and new technologies in view of increasing competition vis-a-vis performance, quality, efficiency and environmental sustainability. There are difficult parts, intricate parts and difficult materials to be managed through metal working equipment and expertise from new technology horizons Viz. additive manufacturing, increasing use of robots, micro machining and super finishing, Industry 4.0 and so on.

With a view to address the evolving trends in machining technologies, Indian Machine Tool Manufacturers' Association (IMTMA) is organizing the "International Seminar on Machining Technologies" on 23 January 2019, in conjunction with IMTEX2019 exhibition, in Bangalore.

Facilitators

Experts from Austria, Germany, Japan, Singapore, Switzerland, UK, USA, as well as from India will facilitate sessions at this International Seminar. Spread over 3 concurrent sessions and 5 technology tracks, this seminar will cover key technology areas and their application related to metal cutting.

Take away

This International seminar will provide both manufacturers and users of machine tools with latest metal-cutting solutions that would enhance productivity, improve quality and finish of machined components, in addition to reducing costs. The Seminar will dwell extensively on latest developments and highlight a range of value added machining solutions.



Seminar Highlights

- ▶ **“Transformative Technologies: The Impact to machining, Services and Business Models”**
This presentation will give an overview of expected changes to come in machining, services and even business models, based on what is happening in the global scenario and what could happen in India too with advent of Transformative Technologies like IIOT, Data Automation, Digitalization and Smart Connectivity.
- ▶ **Connected Solution for Digital Machining**
Utilization of cutter data base in optimizing machining, for getting right quality in the first shot, through continual knowledge based process design refinements, based on Smart Communication during machining process.
- ▶ **Overcoming challenges in difficult - to - machine materials**
Machines are becoming Industry 4.0 compatible with in built sensors, features and working algorithms for higher productivity and performance with difficult - to - machine materials
- ▶ **Grinding process optimization**
Machine features which help optimize Grinding operation, which is often the finishing operation, and controls the final quality apart from making the process more user friendly.
- ▶ **Dynamic Roughing with Multi Axis Machines**
Several strategies to implement multi axis adaptive roughing get evaluated, to optimize safe machining with large 5 axis CNC machines with faster, efficient and user friendly CAM Software.
- ▶ **Improving dynamic efficiency and precision for large CNC Machines**
Use of Control features and parameters to achieve vibration and distortion free cutting, with machines having higher acceleration / deceleration, overhang and moving mass.
- ▶ **Control of vibrations during machining**
Theory and experimental results on quality with use of active and passive damping of cutter, work holding and machine structure.
- ▶ **Countering thermal behavior of machines**
Presentation of the pioneering work done in determining the thermal behavior of machines and the possibilities of countering the thermal distortion.
- ▶ **Adaptive automation**
Some examples on how Robots can pick and place parts kept in random orientation, through augmented vision system and adaptive path.

- ▶ **Machine Tools with Composite structures for improved dynamic response**
Lighter machine structures with use of Composites to achieve ultra low inertia and high dynamic response, for high velocity machines of the future.
- ▶ **Designing for Additive Manufacturing**
Special Techniques of designing for Additive manufacturing to maximize its benefit. The benefits of Additive Manufacturing getting magnified if the parts / assemblies are specifically designed for it, as against use of Additive manufacturing as a substitute for conventional process.
- ▶ **Application of Additive Manufacturing in Tool Engineering**
Example of use of Additive manufacturing for making cutting tools with special features, which are difficult to make otherwise, with comparable performance of manufacturing.
- ▶ **Robotic automation solutions for fettling and de-flashing**
Typical case studies of the use of Robots for addressing the hazardous and bottleneck Foundry process of fettling, in addition to de-flashing of Aluminium Die Cast items.
- ▶ **Machining difficult jobs by Ceramic Tools**
Case studies showing relative advantages for machining difficult parts like Blisk, Aero Engine Parts, Turbine Disk, Broach Milling with material like Inconel, Titanium, High Temperature Alloys etc., with use of Ceramic Tools.

