



ACMEE 2018

13th INTERNATIONAL MACHINE TOOLS EXHIBITION

An AIEMA Initiative

21-25 June 2018
Chennai Trade Centre, Chennai, India

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DAY 2
Friday, 22 June 2018



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CONTENT & DESIGN



Leaping Ahead

Charting a Growth Path

Optimism loomed large as the prominent veterans of the industry flagged off ACMEE 2018, the 13th edition of the country's premier exhibition on machine tools. Their overview on the current state of the industry and its imminent opportunities set a perfect mood, rendering the event the start it deserved.



Dignitaries lighting the lamp at the inaugural ceremony of ACMEE 2018

With the promise to yet again open new avenues for the machine tool industry, the 2018 edition of ACMEE, organized by Ambattur Industrial Estate Manufacturers Association (AIEMA), commenced on a high note yesterday.

The event was inaugurated with the traditional lighting of the lamp by the Chief Guest Shri Suresh Prabhu, Hon'ble Minister of Commerce & Industry and Civil Aviation, Government of India, in the presence of other dignitaries including Thiru

O Panneerselvam, Hon'ble Deputy Chief Minister, Government of Tamil Nadu; Thiru P Benjamin, Hon'ble Minister for Rural Industries, Government of Tamil Nadu; Thiru MC Sampath, Hon'ble Minister for Indus-

To be continued on 2 ▶

Schedule

Concurrent Programs at ACMEE 2018

Date and Time

June 22, 2018
11.30 AM

Technical Sessions

'SAP S/4HANA Cloud for Manufacturers'
by SAP, Germany

Venue

Meeting Room A,
Hall C,
Chennai Trade Centre

Date and Time

June 22, 2018
03:00 PM

Technical Sessions

'Present & Future of Industry 4.0'
by METI

Venue

Meeting Room A,
Hall C,
Chennai Trade Centre



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» This edition of exhibition is the biggest in space and the number of participants, which shows growing interest and the growth of the industry.«

Shri Suresh Prabhu
Hon'ble Minister of Commerce
& Industry and Civil Aviation
Government of India



» The Government will continue to prioritize the growth of MSMEs. AIEMA holds much significance in this endeavor.«

Thiru P Benjamin
Hon'ble Minister for
Rural Industries
Government of Tamil Nadu



» SMEs are crucial in India's growth story. I applaud AIEMA for bringing global technologies at the doorsteps of SMEs through ACMEE.«

Thiru MC Sampath
Hon'ble Minister for Industries
Government of Tamil Nadu



» Machine Tools form the basis of manufacturing. The local manufacturers must leverage the ACMEE opportunity offered to them to rise up to global standards.«

Thiru O Panneerselvam
Hon'ble Deputy Chief Minister
Government of Tamil Nadu

Continued from 1 ►

tries, Government of Tamil Nadu; ACMEE 2018 sponsors including Satish Sadasivan, Managing Director, Schunk Intec India Pvt Ltd; P Ramadas, Managing Director, ACE Manufacturing Systems Ltd & President, IMTMA; R Ganesan, Managing Director, Mahr Metrology India Pvt Ltd; and eminent members of AIE-

MA and the organizing committee of ACMEE 2018.

Vision ACMEE 2020

In his welcome address, D Ravi, President, AIEMA, thanked the Government of India and the Government of Tamil Nadu for their focus on improving infrastructure and conti-

nued support to AIEMA. Noting that ACMEE 2018 is the biggest in the series so far, he put forth his request for a better infrastructure in the form of a convention center in Chennai to make ACMEE 2020 bigger and better in all aspects. K Ayyappan, Chairman, ACMEE 2018, seconded his request of augmenting the exhibition infrastructure.

Growth of SMEs, key to growth

Thiru O Panneerselvam stressed on the importance of machine tools in the growth of the manufacturing industry. "Machine Tools form the basis of manufacturing. Hence, ACMEE is important as it spreads awareness on the latest technologies. The local manufacturers must leverage the opportunity offered to them to rise up to global standards," he said.

Taking pride in the state's reputation as a preferred investment destination, Thiru Benjamin said, "To progress further, upliftment of the SME sector is highly crucial. AIEMA through ACMEE is supporting us in our endeavor."

Thiru Sampath congratulated AIEMA for bringing in global technologies at the doorsteps of SMEs through ACMEE.

The inaugural event ended on a highly positive note as Shri Prabhu extended his support to the infrastructural requirements highlighted by Ravi. "We will make that happen. Let's join our efforts and solve the issues in the process," he concluded.

India's growth is through private sector

Shri Prabhu lauded AIEMA's efforts in offering SMEs the opportunity to be updated with the technological advancements of the world. He spoke on the Government's policies on the growth of SMEs and stressed on the growth of GDP at the district level, which will scale up to the national level.

"We will achieve the dream of India with the help of the private sector. India deserves to be better than what we are today and that is possible only through economic activities which the private sector is good at," he noted.

MEET THE WORLD LEADERS IN MACHINE TOOLS

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ACMEE 2018 Fair Directory was released at the inaugural function.

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With the ultra-compact C6015 Industrial PC, Beckhoff is again expanding the application possibilities of PC-based control. Wherever space or cost limitations previously prevented the use of a PC-based control solution, this new IPC generation offers an excellent price-performance ratio in an extremely compact housing. With up to 4 CPU cores, low weight and unprecedented installation flexibility, the C6015 is universally applicable in automation, visualisation and communication tasks. It also makes an ideal IoT gateway.

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Catering to the Tech Savvy

Beckhoff Automation is showcasing its new automation technology products at ACMEE 2018 and has technologically inclined manufacturers as its target audience.

According to Ajey Phatak, Head - Marketing, Beckhoff Automation Pvt Ltd, ACMEE 2018 is a prominent platform for exhibitors bringing world-class technologies to the Indian manufacturers in order to improve the quality of their products and enhance their productivity. The company is expecting machine design and machine manufacturing companies, control system technology experts, O&M engineers, end user manufacturers, engineering experts from the southern region to visit the show. "IoT being a preferred topic of interest for all manufacturing industries, we expect many users to visit with their plans for IoT projects," says Phatak. With Chennai being an automotive and engineering hub, Beckhoff has had a positive response from the visitors at the ACMEE show in the past.

"We also have a sales office with technical support teams to help our customers in Chennai," he shares. At the show's current edition, the company is targeting technologically inclined machine manufacturers, special purpose machine manufacturers, machine tool builders and end users to visit the Beckhoff booth and explore the use of the latest technologies. "We are also keen to have students and researchers over to understand the global trends," he adds.

Showcasing at ACMEE 2018

"We are displaying our new automation technology products with a special focus on scalable, open CNC system solution; extremely accurate, fast, and robust EtherCAT measurement IO modules; new C6015 - a compact industrial PC - a perfect



Source: Beckhoff Automation Pvt Ltd

»ACMEE is an ideal platform for us to reach out to machine manufacturers, special purpose machine manufacturers, machine tool builders and end users who are keen to explore the latest technologies.«

Ajey Phatak
Head Marketing
Beckhoff Automation Pvt Ltd

product for enabling data acquisition from machines for IoT applications; and TwinCAT HMI software etc," shares Phatak.

EtherCAT P combines communication and power in a single 4-wire standard ethernet cable. One cable technology, the 24V DC supply of the EtherCAT P slaves, connected

sensors and actuators are integrated. System and sensor supply and peripheral voltage for actuators are electrically isolated from each other and can each supply a current of up to 3A to the connected components.

Beckhoff Automation Pvt Ltd
Hall & Stall: A - 101
www.beckhoff.co.in/acmee

Measuring, Inspection & Quality Control

Carving a Time-efficient Future

In a bid to improve overall productivity and overcome time management challenges, Atma Autotech chose FARO's FaroArm® for measurement tasks.

Special Purpose Machines (SPMs) are innovative turnkey solutions that are tailor made to suit specific requirements and provide improvements in safety, throughput, efficiency, and quality. Customizing SPMs is a service that requires specialized knowledge and attention to detail. One such company that supports Indian automotive manufacturers in achieving high productivity is Atma Autotech Engineers Pvt Ltd (Atma Autotech).

Running against time

SPMs are an essential part of automotive manufacturing, whether for assembly or line automation processes. In the course of building an SPM that is reliable and durable, precision is key. At Atma Autotech, the measurement process starts from the design stage. It is especially important to get the right measurements at the onset as the accuracy of each component affects the quality of the SPM, the assembly line, and also its resulting output. In the past, Atma Autotech used to rely on third-party measurement service providers and conventional

tools such as standard bars for its measurement needs. The process was often labor intensive and time-consuming as components had to be manually moved for measurement inspections. "Typically, inspections of large machines with conventional

tools take us one full day," shared Krishan Kumar, Managing Director, Atma Autotech. "As these machines measure up to six feet in size and up to two tons in weight, the measurement task is more challenging. With outsourcing, it can take up to 10 days

for results to come back, leaving us hard pressed for time."

A right call

Atma Autotech eventually invested in a 6-ft FARO® Prime. Due to its portability, Atma Autotech can now conduct its calibration, inspection, dimensional calculations, and free-form component inspections anywhere on the shop floor. The team now uses the FaroArm at least once a week, for an average of seven hours. Used up to 20 days in a month, the FaroArm has since transformed the way Atma Autotech manufactures its SPMs and switch gears. The total amount of time taken for measurement has reduced drastically, and the company can now complete measurements in just three hours. Krishan marveled, "We now enjoy up to 70 percent in time-savings and relative costs. We have cut down on the manual labor and have better control of our project timelines since everything is done in-house."

Challenges

Atma Autotech needed an accurate measuring device for developing customized SPMs. It had to do away with third-party measurement service providers and conventional tools which were labor intensive and time-consuming.

Solution

The portable 6-ft FARO Prime which led to savings by 70 percent in time and significantly in costs. The company cut down on the manual labor required and had better control of its project timelines since everything started getting done in-house.



Source: FARO Business Technologies

An operator conducts measurement inspection with the FaroArm.



Source: FARO Business Technologies

The FaroArm enables operators to perform 3D measurements and inspections easily.

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Hall & Stall: A - 69
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metrology. As a partner for the future, we will make your quality assurance more reliable, more automatic, faster, more wireless and even more user-friendly.

For first time at ACMEE 2018, Mahr proud to announce a New confocal measuring devices for the Non-Contact testing of surfaces. The new systems of the series MarSurf CM and MarSurf CP measure in seconds – even at the highest resolution.

With the new product families, Mahr expands its product range by five high-resolution confocal 3D surface measuring stations. They all operate without contact, independently of material and quickly.

An overview of the new units

The measuring system MarSurf CM explorer is a compact confocal microscope for three-dimensional measurement and analysis of surfaces. Due to its robust construction and the insensitivity to environmental influences, it is also suitable for quality assurance in production environments.

The MarSurf CM expert is the "big brother" of the explorer. It is also used for non-contact 3D surface inspection and can be used in test and inspection laboratories as well as in production.

The MarSurf CM mobile was developed especially for mobile use: it is light and operated via a laptop. The MarSurf CM mobile is particularly well-suited for flexible measurements on large objects and difficult-to-move samples – for surface analysis of rollers, for example.

The new product family MarSurf CM also includes the configurable confocal microscope MarSurf CM select. Thanks to its modular design, the measuring system can be adapted to different measuring tasks.



The MarSurf CM explorer is a compact confocal microscope for 3D testing of surfaces

Furthermore, the Mahr assortment is supplemented by the MarSurf CP select for 2D/3D profilometry.

Convincing features

- High Dynamic Range (HDR) function (16 Bit)
- High measuring speed – also with full resolution
- HD stitching for constantly high resolution even over large surfaces
- Easy and intuitive operation
- Collision detection for the protection of workpiece and measuring system



The MarSurf CM mobile is optimal for measuring larger objects and heavy samples

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CNC Machines

Staying Ahead of the Learning Curve

Lakshmi Machine Works believes in identifying and evolving with the latest industry trends in order to stay at the top. It is here at ACMEE 2018 to witness up close new technologies such as IoT and Industry 4.0.

Lakshmi Machine Works (LMW) needs no introduction in the machine tools industry. The Coimbatore-based leading CNC machine tools player is a regular at ACMEE shows.

"ACMEE is one of the biggest machine tools exhibitions. Its venue – Chennai – is a hub for automobile and engineering products manu-

ring, which is an advantage," states Indraneel Bhattacharya, Vice President, Sales & Marketing, Machine Tools Division, LMW.

The company's main target audience at ACMEE 2018 are the tier 1 & 2 auto component manufacturers. It has been promoting its products and generating sizeable enquires and orders at ACMEE every year. "The success we achieved in the previous ACMEEs forms the reason of our participating in this edition too," he adds.

New from LMW

At ACMEE 2018, LMW's agenda is to promote its range of Vertical Machining Centers (VMCs) and increase their reach to customers. "We also wish to edify our customers on our newly launched CNC lathe – Starturn with Fanuc CNC system," informs Bhattacharya.

Along with the newly launched Starturn, the company is also displaying JV 80 and JV 40 VMCs from its JV series at the expo.



Source: Lakshmi Machine Works Ltd

»At ACMEE 2018, we aim to reach out to tier 1 & 2 auto component manufacturers. We are promoting our range of VMCs and newly launched CNC lathe – Starturn with Fanuc CNC system.«

Indraneel Bhattacharya
VP, Sales & Marketing
Machine Tools Division
Lakshmi Machine Works Ltd



Source: Lakshmi Machine Works Ltd

LMW's JV 40 VMC with rotary table is for high speed small parts machining.

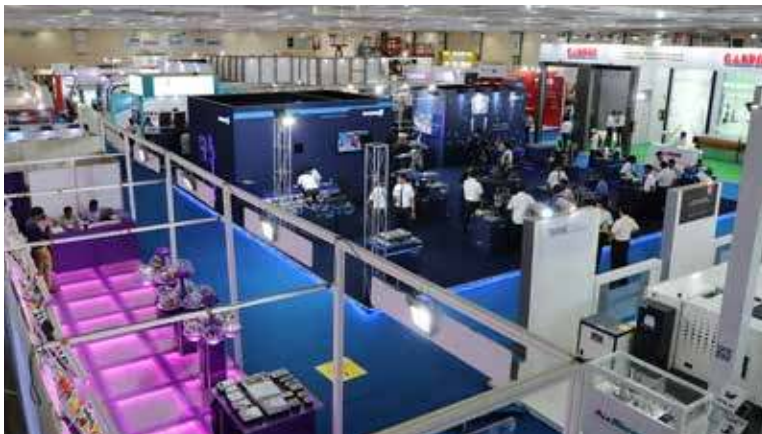
JV 80 is an advanced **VMC** that comes with a Mitsubishi System designed to meet the speed and accuracy requirements needed in the die and mould industry, which handles high volume and quality. It is provided with a die and mould application that offers high spindle speeds of 15,000 rpm with increased rapids on all axes, which greatly reduces cycle time.

JV 40 VMC with rotary table is for high speed small parts machining. It is a compact machine with a higher

stroke (X,Y& Z), higher motor power, higher rapid traverse rate (X,Y & Z-48 m/min), and higher tool clamping force (600 kgf). It comes with an Automatic Tool Changer (ATC) of 20 tools arm type. The VMC has a better load carrying capacity, increased accuracy, an improved surface finish and an operator-friendly design.

Lakshmi Machine Works Ltd (LMW)
Machine Tools Division
Hall & Stall: B - 110
www.lmwncnc.com

Pictures of the Day

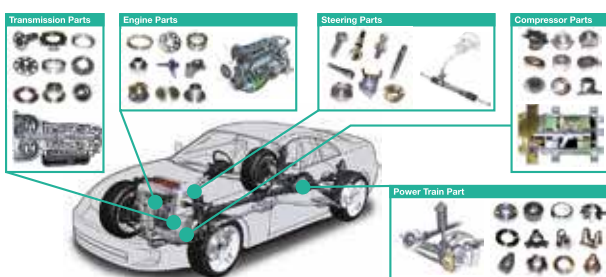


Aerial shot of exhibitor booths at ACMEE 2018



ALSTRUT Robot painting the Eiffel Tower

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Industry 4.0

Addressing Routine Shop Floor Problems with Industry 4.0

METI M2M's Industry 4.0 Consultant, Anil Alur, lists down small steps one can take that can lead to big changes on the shop floor.

A bird can catch worms only if it can see them. The same applies to companies as well; if the inefficiencies at the shop floor go unnoticed, they can become the reason to put a company out of business. According to a 2017 study by ITICR, the average cost for a downtime of one-hour ranges between \$1,00,000 – \$1 million. Hence, the only way to figure out inefficiencies is through the virtualization of shop floor activities. Virtualization fetches real-time data and helps in monitoring the activities. If you are wondering how to virtualize/digitize the production process, then Internet of Things (IoT) is the answer.

Advantages of IoT

The IoT solution from METI is an inexpensive and simple plug and play solution that can address data collection and monitoring problems in a company. It provides simple real-time data from machines, which can lead to enhanced operation efficiency and predictive maintenance, and strategic decisions. IoT mirrors the reality and can break some of the assumptions which would have been made while setting production target. This is much helpful in monitoring downtimes. One of METI's customers analyzed that the average time lost was about 37 min in shift transition and 20 min in setup/reloading the machine, whereas the assumed time was 10 min and 5 min for the respective activities.

Another major contributor to the downtime is the non-availability of raw materials. A company found out that nearly 60 percent of the downtime was caused by the non-availability of materials at the right time, which meant that there was a lack of communication between the production and stores.

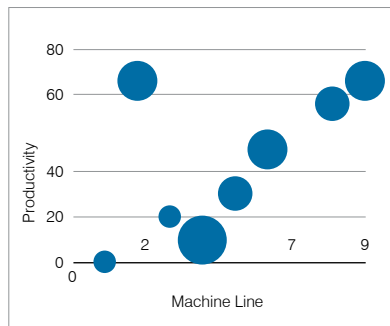


Starting with smaller downtime issues, METI's customer was able to improve his Overall Equipment Effectiveness (OEE) by seven percent in three months. The other areas where IoT can help is in setting production target and tracking efficiency of machines and operators. Usually, a production target or decision is set based on the past data, which poses problems during the actual production run. This eventually calls for resetting the targets and production loss. By implementing IoT,

decisions and targets can be set on a real-time basis, which reduces the scope for inaccurate resetting of targets. How IoT does this is that it tracks the performance of machines, operators, and the energy consumed and reports these data with proper metrics to the concerned persons through the Internet. The data is now always available in the cloud for managers to access and take a call.

The graph shows operator efficiency at each machine line. It can be seen that at a machine, five operators have spent a considerable amount of time with little to no productivity. Now this is what a manager can look into, to understand the cause and come up with a proper training or incentives to motivate the operator to perform better.

Source: METI M2M India Pvt Ltd



Tapping Centers

LK Drill Tap Centre with Auto Pallet Changer BTC 550 APC

Phillips Machine Tools India has launched LK Machinery Corporation's Ultra High Speed CNC Compact Milling Centers for the Indian market. The growth in the Indian manufacturing sector has resulted in increasing demand for highly productive, automated CNC machines. Phillips Machine Tools India is proud to introduce the innovative BTC-550 APC to the Indian market.



Source: Phillips Machine Tools India Pvt Ltd

L.K. Drill Tap Centre with Auto Pallet Changer
BTC 550 APC

BTC-550 series machines are designed for demanding production requirements and 3-axis high-speed cutting on hard materials in addition to multi-face or multi-axis interpolation. Based on the box-in-box cubical structure, BTC machines can be fitted with a standard table, pallet change unit or integrated 5-axis rotary table.

The BTC-550 APC is built for high productivity and is a combination of a sturdy mould making structure with high acceleration/deceleration features of a tapping center. The rapid APC system eliminates work piece loading and unloading with a 3.2 seconds pallet change time. The entire pallet change unit is anchored on the machine eliminating overhang. Also, the centre hole is in the middle of the pallet changer providing easy access to piping and wiring.

Phillips Machine Tools India Pvt Ltd
Hall & Stall: B – 151
www.phillipscorp.in

IoT complements the proven methods

There are assumptions that IoT might replace the already existing operation efficiency and quality improving methodologies like 'Lean Production' but the truth is that IoT is going to complement these proven methods, and organizations don't have to go through radical culture change. What METI offers in the field of IoT is: Data collection, machine-protocol agnostic solutions, man-material, seamless integration, traceability, energy trading applications, ERP ready data from shop floor. If all the things said so far seem intimidating then one can take small steps towards IoT by starting with just four machines. This will give the much-needed insight into leveraging IoT to its full potential.

METI M2M India Pvt Ltd
Hall & Stall: A – 43
www.meti.in

Visitors' Views



Source: Magic Wand Media

A worthwhile visit

» I have come to the exhibition to look for new channel partners and gain knowledge on the latest technologies. So far, I have covered less than half of the expo and the experience has been enriching. I have been to the earlier editions of ACMEE but the current edition's self-registration, being quite systematic, is a welcome move.«

Arunkumar S R
CEO
Vinayaga Engineering Enterprises



Source: Magic Wand Media

Opening up new growth avenues

» This is my first time at ACMEE. It's a great platform which will help us expand our customer base. It's been a useful visit to the exhibition as I could interact with quite many participants and turn them into customers.«

Milind Kulkarni
Managing Director
Kulkarni Transpower Pvt Ltd



Source: Magic Wand Media

Self-registration, a welcome move at ACMEE 2018

» Our visit to ACMEE 2018 has been highly fruitful. We have got all the information that we needed on the machinery and machine manufacturers for our new plant where everything has to be automated. We even gained knowledge on IoT and automation technologies.«

V Rajagopal
Design Engineer
MM Aqua Pvt Ltd

BOOK SPACE IN SHOWDAILY @ACMEE 2018



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CONTENT & DESIGN



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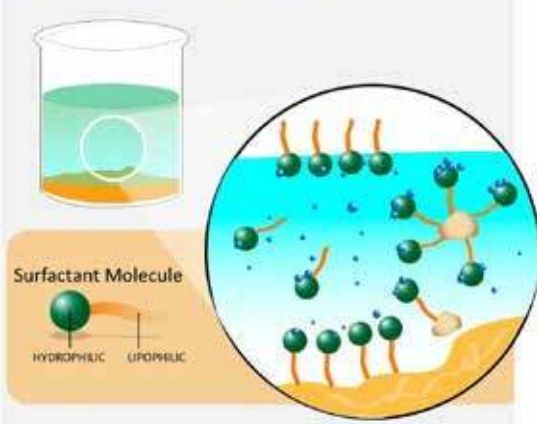
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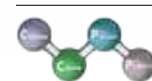
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