



I. TECHNICAL PRESENTATIONS

Manufacturing Aspects in Medtronic Products

Medtronic is the global leader in medical technology- alleviating pain, restoring health, and extending life for people with chronic conditions around the world. Medtronic develops and manufactures a wide range of products and therapies with emphasis on providing a complete continuum of care to diagnose, prevent and monitor chronic conditions.



CMTI organised a presentation on the **Manufacturing aspects in Medtronic Products** at CMTI on 25 Nov 2011, under the aegis of Academy of Excellence for Advanced Manufacturing Technology (AEAMT) and Nano Manufacturing Technology Centre (NMTC).

Dr. Narendra Simha, from Medtronic, made a fascinating presentation on the Art, Science and Engineering of 'life saving devices' developed at Medtronic. These

devices integrating knowledge from multiple domains are very complex devices, embracing the doctrines of materials, coatings, surface engineering, micromachining, mechatronics, biomechanics, telemetering, image processing, biomechanics, simulation etc.

While CMTI has been in the forefront in adopting and transferring advanced and state-of-the-art technology to the Indian industry, meeting challenges from various sectors, and in planning/execution/operation of various specific deliverables to the satisfaction of the clients, the visit of Dr. Simha was aimed at the prospects of possible collaboration with CMTI in developing, testing and certification of Medtronic products, while meeting clinical ethics. He showed keen interest in the test rigs being developed at CMTI and the facilities like laser micromanufacturing, focused ion beam, scanning electron microscope and nano metrology capabilities.

II. 2nd Steering Committee Meeting of Advanced Machine Tool Testing Facility (AMTTF)

The Second meeting of the Steering Committee of the Advanced Machine Tool Testing Facility (AMTTF) was held on 2nd September 2011 at CMTI, Bangalore. The programme was attended by Shri. S. G. Shirgurkar, Chairman, AMTTF & Managing Director, Ace Designers, Members of AMTTF and other invitees.

The Chairman briefed the participants about the activities planned by AMTTF and the status of these activities.

AMTTF, which is presently located within CMTI premises is in the process of augmenting its test facilities and would also be hiring the services of CMTI in discharging its testing services to the industry.



Shri Shrigurkar with Shri B R Satyan, Director, CMTI

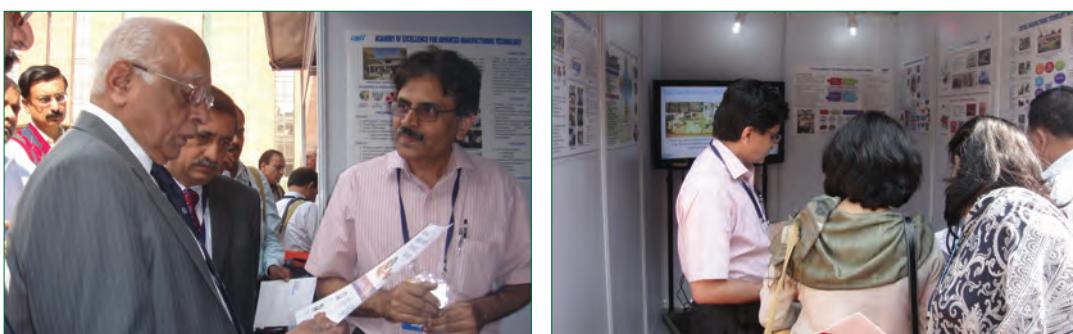
III. Participation in Conferences & Exhibitions

a. “India R&D 2011” Exhibition cum Conference

CMTI Scientists participated in the **India R&D 2011 Exhibition cum Conference** held at Delhi from 2-3 Nov 2011. The inaugural address by Mr. Sam Pitroda, Adviser to Prime Minister of India in Public Information, Infrastructure and Innovations, emphasised the importance of “Industry & Academia Linkages” for progress in the innovation domain.

The Special address by Shri. R Chidambaram, Principal Scientific Advisor to the Government of India stressed on collaborative research with developed nations, precompetitive applied R&D towards proprietary product/process development, focusing on technology denial domains.

Later Shri. Chidambaram visited CMTI stall, where he was apprised of CMTI’s initiatives in academic and research linkages with various Premier Indian and foreign institutions.



1. Shri R Chidambaram evincing keen interest in CMTI’s academic linkages: 2. Shri Satish Kumar HOD, AEAMT, CMTI explaining about CMTI’s role & expertise to visitors @ CMTI Stall

A large number of visitors at the CMTI information booth evinced keen interest in CMTI's R&D activities, research facilities and the academic programmes.

b. India Russia Forum on Trade and Investment

Shri. T Gurumurthy, Joint Director, CMTI attended the CII-FICCI Indian Business Delegation at the **5th India Russia Forum on Trade and Investment Forum**, on 10 Nov 2011 held at Moscow, Russia.

Shri. Gurumurthy, who was one of the speakers at the **Innovations and Commercialisation of the Scientific Research and Technologies Round Table**, made a presentation about CMTI's expertise, the earlier collaborations with Russia and the prospects of collaboration in the area of advanced manufacturing technologies. He deliberated on a number of areas where CMTI could collaborate with Russia towards mutually beneficial technologies and products.

Some of the collaborations envisaged at the meet included *Setting up of Metal Forming Institute; Measurement systems for large size components; High power laser machines / machining technology; Non-Traditional Machining processes; Technology for manufacturing of composite materials / synthetic materials; Material Additive processes; Nano technology Project streams.*



From top clockwise 1. Shri Gurumurthy (3rd from left), 2. Shri. Anand Sharma, Minister of Commerce & Industry, Gol addressing at the Moscow Forum. 3. Shri Gurumurthy discussing a point with Shri Anand Sharma

c. Conference on Challenges in CNC Machining of Aerospace Components

HAL Management Academy conducted a Two-Day Conference on Challenges in CNC Machining of Aerospace Components, at their premises in Bangalore on 29- 30 Nov 2011, with the purpose of providing a forum to share the experiences and challenges faced and to encourage the process of knowledge sharing and innovation within the organisations.

Shri. T Gurumurthy, Joint Director, CMTI, delivered a Keynote address and participated in the panel discussion at the Conference . In his Keynote, Shri. Gurumurthy dealt with “Advanced Manufacturing Technologies on Aerospace Components”, focusing upon the demands made by the new product developments on the new materials development and on advanced technologies, with examples of materials such as composites that are being developed are replacing metals in aerospace, automotives and other sectors; special materials such as titanium and its alloys are being used continuously in aircraft structures. He mentioned about the benefits offered by these materials in terms of their strength/durability, reduced weight and maintenance.

Later Shri. Gurumurthy, chaired two sessions and shared his views with the panel members and the speakers who had made presentations on topics such as machining of aerospace materials, super alloys, heat resistant inconel, high chromium steel, etc.

IV. Celebration of Hindi Divas

14th September is celebrated as Hindi Day because the Constituent Assembly of India had adopted Hindi written in Devnagari script as the Official Language of the Union on 14th September 1949. Hindi Day is celebrated in all the Central Government Organizations to propagate the use of Hindi in the day-to-day working.

Accordingly, a function was organized on 14 Sep 2011 at CMTI to celebrate the Hindi Divas, under the Chairmanship of Shri. BR Satyan, Director and Chairman of the Official Language Implementation Committee (OLIC). The function was attended by all the Joint Directors, Heads of Departments and Project Heads and the Member Secretary of the OLIC. The programme witnessed presentations about the activities of the departments in Hindi by the respective Heads of Departments, interactive sessions followed by an address by the Chairman on the implementation of the Official language Hindi in the activities of the Institute.



V. Governing Council Meeting

119th Meeting of CMTI's Governing Council and 46th Annual General Body Meeting of CMTI Society was held on 18th Oct 2011. The progress of the various on-going and newly initiated projects at CMTI was discussed during the meeting.



VI. Vigilance Awareness Week

Central Vigilance Commission (CVC) of the Government of India has instructed all the Organisations falling under its jurisdiction to observe 31 Oct to 5 Nov as the Vigilance Awareness Week every year. Accordingly, CMTI also observed the Vigilance Awareness Week from 31 Oct 2011 to 5 Nov 2011, this year, the focus being '**Participative Vigilance**'.

Shri. Mohana Rao Koppole, Retired Vigilance Officer, was invited on 31 Oct 2011, to share his views on vigilance with the employees. In his presentation, Shri. Mohana Rao recounted the details of the establishment of CVC, the organisational setup and its mission'. Through his presentation, Shri. Mohana Rao, elucidated the concept of ethics management and the role of every individual in adhering to the discipline, morality, legality, accountability and probity issues of an organization in implementing a sharp vigilance level.



The meeting concluded with an oath taking of the pledge received from the government, administered by the Director about eradication of corruption.

VII. Visit of delegates from National Institute for Micro, Small and Medium Enterprises (NI-MSME)

23 delegates from 13 different countries led by Shri. V Vishwas Rao, Head, SENDOC, NI-MSME, visited CMTI on 17 Oct 2011 to get a first-hand exposure to the CMTI's services and activities including NC/CAD/CAM/FMS/CIM, and Technical Information Services. The visit was a part of the training programme organized by NI-MSME on Information Systems and Services for SMEs. The delegates from countries like Afghanistan, Egypt, Laos, Indonesia, etc., were also representatives from different ministries including commerce & Industry and had varying background from chemistry to medicine, narcotics to library & information science. Many of them evinced keen interest in taking the visit further for fruitful links with their organisation in the near future.



VIII. Second Batch of the Post Graduate Diploma in Advanced Manufacturing Technology (PGDAMT)

The Second batch of students who have enrolled for the ***Post Graduate Diploma in Advanced Manufacturing Technology (PGDAMT)*** completed their first semester at Karunya University,

Coimbatore and commenced their stint at CMTI for their second semester, from 19 Dec 2011.

The students who were welcomed to CMTI were introduced to the Senior scientists with whom they would be interacting for their project work. Shri PV Shashi Kumar, Joint Director, CMTI, apprised the students about the purpose of the course in moulding the students for an industry-ready environment. Shri T Gurumurthy, Joint Director, CMTI, emphasised the importance of the students' initiative to stretch themselves to learn about the advanced machines and technologies and the expertise that are available to them at one place in CMTI and advised them to make use of this rare opportunity. The students would be working on industry-oriented live projects and would have hands-on experience on high technology machines. Shri. S Satish Kumar, HOD, Academy of Excellence for Advanced Manufacturing Technology (AEAMT) briefed the students about the course and program details.



IX. Training Programmes Conducted during Sep – Dec 2011

a. Exclusive Programmes

An In-House training programme on ***Geometric Dimensioning & Tolerancing*** was arranged for M/s. Timken Engineering & Research Pvt Ltd. Bangalore on 22 Sep 2011.

A 4-day programme on ***Geometric Dimensioning & Tolerancing*** was arranged for M/s. Bharat Dynamics Ltd, Medak District, Andhra Pradesh from 18 to 21 Oct 2011.

A 2-day training programme was arranged on ***Calibration of Dimensional Measuring Equipments*** for M/s. Nagman Instruments & Electronics (P) Ltd., Chennai during 27 – 28 Dec 2011.

The above programmes were organised at specific requests received from the respective organisations for training their officials at their places. Subject experts from CMTI administered the training customised to the respective organisations, to the complete satisfaction of the participants.

b. Scheduled Programmes

Topic: Calibration of Dimensional Measuring Equipment

Date: 17 – 21 Oct 2011

Topics discussed included:

Calibration Concepts, Requirements, Procedures, Uncertainty measurement, Examples and Practicals

Topic: CMM & Its Applications

Date: 14 - 18 Nov 2011

Topics discussed included: CMM Introduction, Basic concepts, Metrology & Measurement Aspects, Probes, Calibration, Demos and Discussions.

The training programmes were substantiated with practical demonstrations, hands-on experiences, and visits to CMTI's facilities.

X. Ayudha Puja Celebrations

Ayudha Puja was celebrated with usual fervour and grandeur on 5th Oct 2011. Addressing the employees and their families, Director Shri. BR Satyan, acknowledged the quality and importance of CMTI's contribution to various projects of National importance in departments spanning from space to defence / strategic sectors. He also recounted about various linkages and MoUs with institutions of national and international repute.

Shri. Satyan distributed prizes to children of employees, who had excelled in their academics and sports.



XI. Kannada Rajyotsava

Kannada Rajyotsava was celebrated at CMTI on 16th Nov 2012. Dr. K.P. Puthurayaru, a Gold medallist from the All India Institute of Medical Sciences (AIIMS), was the Chief Guest.

Dr Puthurayaru has been in the field of teaching for well over 40 years, with his research papers published in national and international journals. He has visited a number of countries, was a visiting professor at Japan, and has many accolades to his oration.

Speaking on the occasion of Kannada Rajyotsava at CMTI, Dr Puthurayaru captivated the audience with his hilarious narrations about the use of Kannada language. The program had entertainment like songs and drama rendered by CMTI employees. The function was attended by all the CMTI employees and their family members.

A Kannada library was inaugurated on the occasion, to which Dr Puthurayaru donated some of the books authored by him.



XII. Retirements

Shri. N Ashwathanarayana, Office Assistant Gr II, retired from Administration in Oct 2011, after 36 years of service.

He has handled administrative functions in different departments such as Central Planning & Coordination, Standards and Administration.



Shri. BV Chandrashekhar, Multi Task Attendant Gr II, retired from Administration in Oct 2011, after 34 years of service.

He has been working in the areas of housekeeping and administrative activities.



Shri. Narasimhalu, MTA Gr III, retired from Administration in Oct 2011, after 34 years of service.

He has served as a gardener and later worked in the transport department.

Shri. Raghunathan HV, Senior Technical Officer, retired in Nov 2011 after 35 years of service.

He has worked in various capacities in different departments such as Prototype Workshop, Numerical Control, Precision Engineering, handling various activities such as supervision of operation of machines, metrology and calibration.



Shri. K Shanmugam, Security Superintendent Admn/Security retired in Nov 2011 after 25 years of service.

He was in-charge of all inward and outward movements of goods at CMTI, supervising the overall security of the Institute.

Shri. MA Ravindra, Joint Director, retired in Nov 2011 after 37 years of service. Shri. Ravindra who joined as an Apprentice Officer, has contributed to various activities by heading departments such as Standards, Training, Project Coordination & Customer Relations, Marketing and Technology Information Services.



He was instrumental in the initiation of the Academy of Excellence for Advanced Manufacturing Technology, a new initiative under the XI five year Plan and in the formulation of the new Course ***Post Graduate Diploma in Advance Manufacturing Technology (PGDAMT)***.

He was also involved in penning a number of MoUs for collaborative R&D with various academic institutions in India & abroad.

Shri. P Babin, Joint Director retired in Dec 2011 after 37 years of service. Shri Babin, who joined as an Apprentice Officer was actively involved in the planning and execution of various product development-related projects including those of strategic importance with a vast experience in the design, manufacture, assembly & testing areas. He was involved in the design & supply of vertical mixing machines of different design variants to strategic sectors. Special toolings were developed and executed by him for the energy sector. He has contributed in the field of testing of Special Purpose Machine Tools and R&D activities.



In order to provide continuity for the ongoing developmental projects, his service as a Joint Director was extended for 2 years from 2010 to 2011.

CMTI wishes all the Retirees a Very Happy & Peaceful Retired Life.