

**2016-17**



**The Indian Institute of Metals  
Tiruchirappalli Chapter**

Executive Committee for 2016-2017			
SL. No	TITLE	NAME S/Shri	ADDRESS
1.	<b>Patron</b>	<b>R. Rajamanohar</b>	Executive Director, BHEL
2.	<b>Chairman</b>	Dr. S. Raman Sankaranarayanan	Professor MME Dept. NITT
3.	<b>Imm. Past Chairman</b>	R Easwaran	GM-IC (WRI, Labs & Quality), BHEL
4.	<b>Vice Chairmen</b>	P. Manoharan	AGM (Logistics), BHEL
5.		P. Chellapandian	AGM (PCPS), BHEL
6.		Mrs. A, Santhakumari	SDGM (WRI), BHEL
7.		N. Rajasekaran	DGM (BPN-Unit II), BHEL
8.	<b>Hon. Secretary</b>	N. Parameswaran	Sr. Manager (MM-BOI), BHEL
9.	<b>Past Secretary</b>	G. Rajendran	SDGM (OP & C) PPPU, BHEL
10.	<b>Hon. Treasurer</b>	K. Raja	Sr. Manager, FES, BHEL
11.	<b>Joint Secretaries</b>	Dr L John Berchmans	Scientist (CECRI)
12.		Dr. S. P. Kumaresh Babu	HOD, MME Dept, NITT
13.		Danesh Kant Verma	DM. (WRI), BHEL
14.	<b>Joint Treasurer</b>	Dr. T. Harsha	DM, (R&D- MHD), BHEL
15.	<b>Members</b>	Dr. S. Angappan	Scientist (CECRI)
16.		Dr. S Muthukumar	Asso. Professor, MME Dept., NITT
17.		Dr. K. Santhy	Asso. Professor, Dept. of Met. CARE
18.		V Suresh Kumar	Sr. Engr., (OP&C)
19.		M Periasamy	Sr Engr., (PCPS)
20.		L M Subramanian	Sr. Manager (R&D)
21.		R. Ravibharath	DM (WRI)
22.		Dr. S Kumaran	Lecturer, MME Dept., NITT
23.		K Rajasekar	Sr. Manager (Engg.) Valves
24.		S Nikhil	Sr. Engineer (PCPS)
25.	<b>Co-opted members</b>	M. Thirugnanasambandam	Former DGM (HRDC) BHEL
26.		K E Rajgopalachari	Former Manager (QC, BHEL)
27.		P Govindaraju	Former Sr. Manager (NDTL)
28.		Dr R Vaideeswaran	Former Sr. Manager, Plant Lab
29.		M Jayaraj	Former Sr. Manager (R & D)
30.	<b>Permanent Invitees</b>	Dr. T A Daniel Sahayaraj	DDOB
31.		G Uma Shanker	Director (OPNS), VEESONS
32.		P. Soundararajan	Former GM (Valves) BHEL

**Honorary Secretary's Report for the Year 2016-2017**

Respected Chairman, immediate past chairman, past chairmen, Vice – Chairmen, executive committee members, fellow members, invitees, friends from media, Ladies and Gentlemen,

A pleasant evening to you. It is a great privilege and honour for me to present a brief report on the activities of our chapter for the year 2016-2017.

Now, I would like to present the major highlights of the year as follows:

- ❖ ***The chapter created history in BPMMQ, by emerging as winner in the coveted BPMMQ 16 for the seventh time. By emerging as winner in the 2016 edition, the chapter nominees has reached the podium for a record TEN times (7 times as winners & 3 times as runners up). The chapter is the loner in the summit.***
- ❖ ***Shri R. Easwaran, GM, WRI & Labs, BHEL, Tiruchy has been conferred with Honorary Fellow Membership of the institute on the NMD at Kanpur.***
- ❖ ***The 6<sup>th</sup> Dr. G V MEMORIAL LECTURE AWARD 2016” has been conferred on Shri R. Easwaran, GM, WRI & Labs, BHEL, Tiruchy.***
- ❖ ***40 new members were added during the year.***
- ❖ ***Chapter participated in the Chapter Relationship Committee Meetings and made presentations.***
- ❖ ***Two of our nominees were elected as National Council Members for the year 2016 - 2017.***
- ❖ ***M Namasivayam Memorial IIM Merit Award for academic excellence to the wards of our members. Rs. 4000/- was awarded as prize money for the meritorious students.***
- ❖ ***Chapter office bearers attended 2 National Council meetings.***
- ❖ ***METTLE 16 - a mega national level student event was conducted by the student chapter of National Institute of Technology, Tiruchirappalli and supported by the chapter.***
- ❖ ***The Silver Jubilee Edition of TMAQ, the TMAQ @ 25, the mega quiz programme to select teams for BPMMQ 16 was conducted in two phases.***
- ❖ ***Similar to TMAQ @ 25 Junior TMAQ 16 was conducted this year also for the 9<sup>th</sup> and 10<sup>th</sup> standard students.***

- ❖ *The Executive committee met 11 times.*
- ❖ *7 Free Lecture programmes were conducted by the Chapter.*
- ❖ *National Metallurgists Day was celebrated at Chapter Office on 14<sup>th</sup> November 2016.*
- ❖ *AGM of 2015-16 was conducted on 26<sup>th</sup> April 2016 and the reports were sent to HQ on 27<sup>th</sup> April 2016 by E mail.*
- ❖ *09 seminars / conferences / workshops.*
- ❖ *22 lecture programmes at various colleges / polytechnics*
- ❖ *Two Get together of EC members with Patron and EC members of other professional bodies.*
- ❖ *Four issues of In-house journal METALL published as e JOURNAL.*
- ❖ *Honouring of senior members for their services to IIM.*

### MEMBERSHIP

The IIM, Tiruchirappalli Chapter has completed its thirty seven years of continuous and significant service to the metallurgical fraternity, an achievement, which it can really be proud of. The membership status of our chapter is as follows.

During the year, the chapter has enrolled 40 new members and sent Rs. 204175/- to HQ as subscription realised from the members.

### 36<sup>th</sup> ANNUAL GENERAL MEETING



The 36<sup>th</sup> Annual General Meeting (AGM) of IIM, Tiruchirappalli Chapter was conducted at the Institutions Building premises at BHEL Township, Tiruchirappalli – 620 014 on 26<sup>th</sup> April 2016 evening. 44 members attended the AGM. It was a pleasant evening for the members as they gathered at the venue with their families. Mr. P. Manoharan, Vice Chairman welcomed the gathering. Mr. G. Rajendran, Hon. Secretary presented the activity report for the year 2015–16. The AGM unanimously approved the report. Mr. M. Thirugnanasambandam proposed and it was seconded by Mr. K. Raja.

Mr. N Rajasekaran, Hon. Treasurer submitted the audited accounts for the year 2015–16 and the AGM approved the same. Mr. M Krishnamurthy proposed and it was seconded by Mr. R. Selvaraj.

Then, Mr. M Thirugnanasambandam, Returning officer announced the election results. Dr. Raman Sankaranarayanan, Prof. (MME), NITT was unanimously elected as Chairman of the Tiruchirappalli chapter of the Indian Institute of Metals for the year 2016–17. The AGM also elected Mr. P. Manoharan, AGM (OS), BHEL, Mr. P. Chellappandian, AGM (ATP), Mrs. A. Santhakumari, SDGM (WRI) and Mr. N. Rajasekaran, SM (BPN, Unit II) as Vice Chairmen, Mr. N. Parameswaran, Sr. Manager (BOI), BHEL as Hon. Secretary, Mr. K. Raja, Sr. Manager (FES), BHEL as Hon. Treasurer. Along with them, Dr. T. Sriharsha was elected as Joint Treasurer and Dr. John Berchmans of CECRI, Prof. Dr. S P Kumaresh Babu of NITT & Mr. Dhanesh Kant Verma of WRI as joint secretaries. The list of EC members is furnished in the annexure.

Installing the office bearers, Mr. P. Soundararajan, Former Chairman of the chapter, complimented the chapter for its significant achievements. He conveyed his best of wishes to the new team and advised the chapter to bring in more young members.

Then, Mr. R. Easwaran, Chairman presented mementos to the EC members who rendered significant services for the successful conduct of NMD – ATM 2015, Best Chapter Award 2015, TMAQ and the staff members.



In his address to the members, Mr. Easwaran said, “It is happy occasion to co-organise NMD 2015 for the third time. I thank all the members and EC members for getting the Best Chapter Award for the 14<sup>th</sup> Consecutive time. Further, I was moved by the kind gesture of the past presidents in giving a standing ovation to the chapter, when the award was received by our Chapter. That shows the respect the chapter has earned. At this moment, I thank all our past chairman for their selfless services for the cause of IIM.”

Addressing the AGM, Mr. Raman Sankaranarayanan, Chairman appreciated the efforts of the outgoing committee for making bench marking performances. He also said that the financial support to TMAQ event in a big way. During the AGM, Dr. T A Daniel Sahayaraj, Dy. Director of Boilers, Tamil Nadu addressed the members. In his felicitation address, he said, “The chapter should explore the possibility of conducting programmes on non-ferrous materials processing”. He also assured to bring in more members to the chapter.

Mr. N Parameswaran moved the motion to appoint Mr. S V Seetharaman as auditor for the year 2016-17 and to fix his remuneration as Rs. 1500/- by the AGM. The AGM unanimously adopted the motion. Dr. S. Muthukumar, EC member proposed the vote of thanks. Mr. N. Parameswaran conducted the proceedings. As in the past, fun games and Tambola were conducted for the spouses and wards, of IIM members by Mr. DK Verma. All of them joined for a delicious dinner at the end of the AGM.

### Dr. G V MEMORIAL LECTURE AWARD 2016



Mr. R. Easwaran, General Manager (WRI & Labs) is bestowed with the coveted Dr. G V MEMORIAL LECTURE AWARD 2016. Mr. R. Easwaran's name was nominated by the committee comprising Dr. Raman Sankaranarayanan & Dr. S P Kumaresh Babu, Dept. MME, NIT, Tiruchy and Mr. P. Chellappandian, Addl. GM BHEL.

Mr. Easwaran received the plaque and citation from Mr. P. Soundararajan, former Chairman of the Chapter on 26<sup>th</sup> April 2016.

On receiving the award, Mr. R. Easwaran said he was humbled to get the award in the name of Dr. GV, his guru in metallurgy and considered this as a great honour to him.

The 2016 delivered by Mr. R. Easwaran was on the theme, “Learnings from Fabrication of T 23 (2.25 Cr-1.6 W-V-Nb) Steel Tubes in Power Plant Applications”. Mrs. Hema Venkataraman, Wife of Dr. GV was present on the occasion.

### FELICITATIONS TO THE PAST CHAIRMAN & GET TOGETHER



On 27<sup>th</sup> May 2016, the chapter has felicitated its former chairman Mr. P. Soundararajan for his immense contributions to the growth of the institute and the chapter. In the colourful function held at the Chapter office premises, team IIM led by chapter chairman Dr Raman Sankaranarayanan & Immediate past Chairman Mr. R Easwaran offered their felicitations and recorded their appreciations to Mr. P. Soundararajan for his significant accomplishments for the growth of the chapter.

Earlier, Mr. K Raja, Hon. Treasurer welcomed the gathering and Mr. N Parameswaran, Chapter Secretary proposed the vote of thanks. Mr. R Easwaran adorned a shawl and the chairman presented a memento to Mr. P. Soundararajan. In his address, Mr. Soundararajan appreciated team IIM Tiruchy and expressed his confidence that this team will conquer newer heights in the years to come. The day ended with a delicious dinner.

### M- Tric '16

The chapter in association with the student chapter at CARE group of institutions and the Department of Materials Science and Engineering, CARE Group of Institutions organised M-Tric'16 (quiz programme for +1 and +2 students) on 23 July 2016, as a prelude to TMAQ @ 25. Totally 14 schools in and around Tiruchy participated in the programme which was organised with the objective to inculcate knowledge and wisdom on materials in them.

The shortlisted students from the preliminary round of quiz participated in the finals. The winners were awarded in the valediction. The winner for the quiz competition bagged by R. S. Krishnan Hr. Sec. School, Tiruchy. The winner for spellbee and varthai vilaiyattu were St. Joseph's Anglo Indian Girls Hr. Sec. School and Champion School, Tiruchy respectively. The prize for Einstein's playhouse was grabbed by Champion School, Tiruchy for presenting their innovative model.

The award for debate was shared by AKKV Aarunadu Matric Hr. Sec. School and R. S. Krishnan Hr. Sec. School, Tiruchy. President of Materials Science Students Association of CARE institution proposed the vote fo thanks.

### TWO DAY WORKSHOP ON WELDING TECHNOLOGY

The chapter in association with the student chapter at CARE group of institutions and the Department of Materials Science and Engineering, CARE Group of Institutions organised workshop on "Welding Technology with Industrial Visit" at CARE campus from 22<sup>nd</sup> to 24<sup>th</sup> August 2016.

This workshop covered from basic of welding technology to current trends and its applications. The workshop was inaugurated by Mr. Rajasekaran, Vice Chairman of the chapter followed by his guest lecture on 22<sup>nd</sup> August 2016. Dr. A. Raja, Mr. S. Singaravelu, Mr. Luck Gaur and Mrs. A. Santhakumari eminent experts in their field gave in-depth knowledge of friction stir welding, explosive welding, diffusion bonding process, fusion welding, cold metal transfer, submerged arc welding, etc. Totally 45 participants out of 8 institutes have benefited from this programme.

### TMAQ @ 25



The Silver Jubilee edition of the flagship programme of the chapter, the Quiz on Metals and Materials christened as "Tiruchirappalli Materials Quiz @ 25 (TMAQ @ 25)" was held in two stages as in the past.

TMAQ @ 25, to select the qualifying teams for the International Brahm Prakash Memorial Quiz 2016, was conducted by IIM Tiruchy Chapter covering 19 revenue districts of Tamil Nadu, Pondicherry & Karaikkal area of Pondicherry state (Thiruvannamalai, Cuddalore, Villupuram, Perambalur, Ariyalur, Tiruchy, Pudukkottai, Sivaganga, Madurai, Theni, Dindigul, Tirunelveli, Thoothukkudi, Nagarcoil, Thiruvarur, Nagapattinam, Namakkal, Karur and Erode). TMAQ @ 25, brochures were printed and sent to nearly 900 schools in all the above districts.

314 students from 44 schools participated in the written preliminary round held at seven centres conducted on August 21, 2016. IIM EC members with student chapter members travelled to all the centres to conduct the quiz. The seven centres were divided into four regions. The regions were divided into two zones. Participation certificates were issued to all the students by IIMT. Top TWO performers at each centre were given cash prizes by IIMT. Out of that, 42 teams from 26 schools were selected based on

their performance in the written test. The selection was not based on centres, but based on overall ranking of all the students. The highest mark scored in written round is 51 out of 60.

The morning of the day started at the Orion Building of NIT Premises. After completion of registration process for the students, Mr. R Easwaran, Quiz Master briefed the students about the rules and regulations of the quiz and briefed about the day's schedule. The oral round quiz was conducted by Mr. N. Rajasekaran, Mr. G Rajendran, Dr. Raman Sankaranarayanan, Mr. N. Parameswaran, Dr. Sriharsha, Dr. K. Santhy & Mr. P. Chellappandian. They were ably assisted by the student chapter members of NITT and CARE College as scorers and time monitors. Based on the rankings top three teams from each zone were selected for the finals.

During the intervening period, a talk on "Opportunities in the field of Metallurgy" was given students of MME Dept. of NITT, Dr. Muthukumaran our EC member and Dr Santhy of CARE College.

The post lunch session started with the announcement of results by Mr. R Easwaran. The teams for finals were selected for both the zones based on the marks obtained from each zone. Lots were drawn for selecting the teams for the finals.

Before start of the grand finale, Mr. N Rajasekaran made a presentation as a special issue of METALL, which traversed back on the distinguished history of Materials Quizzing at Tiruchy.

Mr. R Easwaran conducted the final rounds with multimedia presentation and ably supported by Mr. N. Rajasekaran and Mrs. A. Santhakumari.

After the mind boggling rounds of quizzing, the colourful valediction function of TMAQ @ 25 started. Dr. T A Daniel Sahayaraj, Dy. Director of Boilers, Tamil Nadu was the Chief Guest and delivered the valedictory address. In his address he said, "The quiz is really tough and I appreciate the students for their talent and knowledge in tackling the questions successfully. Such programmes motivate and mould the students effectively for the future".

Dr. Raman Sankaranarayanan, Chairman of the chapter presided over the function. Mr. R Easwaran, Chairman briefed about TMAQ and its evolution over the years. Dr. Muthukumaran, of MME Dept. of NIT Tiruchy offered his felicitations. Earlier, Mr. N Parameswaran, Hon. Secretary & Convenor of TMAQ @ 25 welcomed the gathering. Mr. K Raja, Hon. Treasurer proposed the vote of thanks. Mr. N Rajasekaran, Vice Chairman conducted the proceedings. During the valediction function, the following winners were awarded with certificates and cash prizes.

The top two teams of TMAQ @ 25 qualified for BPMMQ 2016 and were nominated by the chapter. Regional winners from all the four regions were selected based on the cumulative performance in written and oral rounds and cash prizes were given. Certificates were given to all students by IIMT. A cash prize of Rs. 5000/- & Rs. 3000/- to the winners and runners up from each region. Besides, the top two regional winners from each region were awarded a cash prize of Rs. 1000/- and Rs. 600/- respectively. One way bus fare was given to all the participants and accommodation was given to the needy students, free of cost. The chapter selected FOUR students out of 314 students through the process. i.e., 1.27% of participated students only were selected to represent the chapter.



**JUNIOR TMAQ 16**

The Junior TMAQ 16, the Materials Quiz for the 09<sup>th</sup> and 10<sup>th</sup> students is becoming popular year after year. The overwhelming response made the chapter to invite the 09<sup>th</sup> and 10<sup>th</sup> standard students along with the TMAQ @ 25 students to the seven centres and to conduct a separate written quiz round for them. The winners and runners up were awarded at the centre level. 214 students from 33 schools participated in the prelim round of Junior TMAQ 16. From each centre students were invited to Tiruchy for final rounds based on the cut off marks. 54 students (86% increase over previous year) attended the finals at Tiruchy and got the opportunity to scale the final frontier of TMAQ @ 25, which will motivate them to participate in the coming years. The students participated in the final written round at Tiruchy during the semi-finals of TMAQ @ 25. The final round was conducted by Mr. K Raja and Mr. A Rajasekar. The winners and runners up were given a cash prize of Rs. 3000 and Rs. 2000/- respectively along with certificates.

**ESSAY COMPETITION FOR STUDENTS**

The chapter conducted an Essay competition in line with the BPMMQ competition. 15 essays were submitted by the participants of TMAQ @ 25. The top two awards carried a cash prize of Rs. 1000/- and Rs. 500/-. Essays were submitted on High Entropy Alloys, Negative refractive index materials & Solid Oxide Fuel Cells. Out of the 15 essays, top two essays were selected and awarded during the valediction of TMAQ @ 25.

**M NAMASIVAYAM MEMORIAL IIM MERIT AWARDS 2016**

As in the past, the chapter has honoured the high performers among the wards of its members with the M Namasivayam Memorial IIM Merit Award. The top meritorious awards carry a certificate of excellence and a cash prize of Rs. 2000/- each for +2 and 10<sup>th</sup> standards. This year the awards were won by:

+ 2 students

Name	Son / Daughter of	School	Rank
Arun Prasad E M	Mr. E Murugan	RSK HSS, Tiruchy	I

•10<sup>TH</sup> Standard

Name	Son / Daughter of	School	Rank
Raghav M	Dr. S. Muralidharan	KV, CECRI, Karaikudi	I

**BPMMQ 16**



The chapter created history in BPMMQ, by emerging as winner in the coveted quizzing competition on materials for the seventh time. By emerging as winner in the 2016 edition, the chapter nominees has reached the podium for a record TEN times (7 times as winners & 3 times as runners up). THE CHAPTER IS THE LONER IN THE SUMMIT NOW. Mr. HARISH SIDHARTH V & Mr. BHARAT ARUN S

of Jayendra Swamigal Silver Jubilee MHSS, Tirunelveli brought laurels to the chapter at Kalpakkam. METALL CONGRATULATES THE WINNERS AND THANKS TEAM TMAQ @ 25 & Mr. K E R Chari for his role as team manager.

### NMD – ATM 2016



The National Metallurgists Day and Annual technical Meet of the institute was conducted at IIT Kanpur. On behalf of the chapter Mr. R Easwaran Imm. Past Chairman attended the NMD. During the celebrations, Mr. R Easwaran has been conferred with the Honorary Fellow Membership of the Institute by Prof. Indranil Manna, President IIM & Director, IIT Kanpur on November 14, 2016. Mr. R. Easwaran is the fourth Fellow from the chapter. Mr. R. Easwaran also received the Winners Prize for BPMMQ

16 from the president.

### GET TOGETHER WITH OTHER PROFESSIONAL BODIES & FELICITATION TO PATRON



On 22<sup>nd</sup> August 2016, the chapter conducted a get together meeting with other professional bodies functioning at the premises of BHEL, Tiruchirappalli

During the occasion, the chapter hosted a Felicitation to its Patron, Mr. S Gopinath, then ED of BHEL, Tiruchy and the incoming CEO of BHEL, Tiruchy Mr. R Raja Manohar. Mr. N Parameswaran Hon. Secretary adorned a shawl on Mr. Rajamanohar. Mr. R Easwaran presented a memento to Mr. Rajamanohar. Dr. T A Daniel Sahayaraj, DDOB, Dr. Sakthivel, DDOB, Dr. Raman Sankaranarayanan, Chairman, Mr. G Rajendran Past Secretary and Mr. N. Rajasekaran Vice Chairman spoke on the occasion.

### GET TOGETHER WITH OTHER PROFESSIONAL BODIES AT CHAPTER OFFICE

On 10<sup>th</sup> October 2016, on the Ayudha Pooja Day, the chapter conducted a get together event at the chapter office premises. The EC members of IIM, IWS, IIW, CSI and IPE participated in the event. Dr. Raman Sankaranarayanan, Mr. R Easwaran, Mr. N Rajasekaran, Mr. G Rajendran, Mr. N Parameswaran and our EC members participated in the event. Mr. K Raja, Hon. Treasurer and Mr KER Chari along with Mr. Athimoolam Selvaraj made the arrangements.

### NMAD AT CHAPTER OFFICE



On 14<sup>th</sup> November 2016, the chapter celebrated the National Metallurgists Day with vigour. Dr. Raman Sankaranarayanan, Chairman, Mr. P Chellappandian, Mrs. A. Santhakumari & Mr. N Rajasekaran, Vice Chairpersons, Mr. N Parameswaran, Hon. Secretary, Mr. K Raja, Hon. Treasurer and EC members and members of the chapter participated in the evening programme. Floral tributes were made to the image of Pandit Jawaharlal Nehru and a cake was also cut during the occasion. Mr. K E R Chari our EC member coordinated the event. Mr. Parameswaran welcomed the gathering and Dr. Raman Sankaranarayanan addressed the members. Mr. K Raja, Hon. Treasurer proposed the vote of thanks.

### MIDAS 2k16



A one day workshop on “Manufacturing Inroads into Defence, Aerospace and Strategic Sectors – (MIDAS 2k16)” was organized by the chapter in association with WRI, NITT and IWS on June 13, 2016. The objective of this event is to give an exposure about the products for the Defence, Aerospace and other Strategic sectors, that can be manufactured in the industrial infrastructure available in Tamil Nadu, which includes BHEL and the 500 odd MSMEs around Tiruchy, Chennai, Coimbatore, which are actively involved in fabrication and machining. The event had senior level scientists/executives as speakers from leading strategic sectors like DRDL, Brahmos, VSSC, NPCIL, HAL, and CVRDE. Dr. S. Sundarajan, Director, NITT was the Chief Guest and Mr. S. Gopinath, Patron of the chapter presided over. Mr. Kumar Sarangarajan, GM, ATP & BDG, BHEL proposed the vote of thanks. Earlier Mr. R. Easwaran, our past chairman welcomed the gathering. Mr. N Rajasekaran, Vice Chairman of the chapter conducted the proceedings.

Following the inauguration, there were talks by eminent scientists and technocrats from the participating organisations. The talks have covered the opportunities that are available for outsourcing and where the industry belt in this region could actively contribute to meet the ever-growing demands. Mrs. A Santhakumari, Vice Chairperson Mr. KER Chari and other EC members along with Mr. N Parameswaran coordinated the event.

### IMME 17

The Chapter, the Department of Metallurgical and Materials Engineering, National Institute of Technology Tiruchirappalli and Indian Welding Society have jointly organised the three day “International Conference on Emerging Trends in Materials and Manufacturing Engineering (IMME 17)” between 10<sup>th</sup> and 12<sup>th</sup> March 2017 at Tiruchirappalli. The conference met its objective of bringing experts and budding researchers together on a common platform to discuss and exchange ideas on recent developments, findings and progresses on wide areas related to materials and manufacturing engineering has been successfully met. Awards were presented for the best technical paper and for the best oral presentation / best poster in each session. More than 200 papers were presented in the three day event. The event was inaugurated by Dr. Gopalan Srinivasan (Dept. of Physics, Oakland University, USA) in the august presence of Director in charge (NIT, Tiruchy). Dr. S P Kumaresh Babu, EC Member and HOD (MME Dept.), briefed about the conference. During the inauguration, Prof. V Sivan and Prof. N Dakshinamoorthy, retired professors of MME dept. were felicitated. Prof. Banu Shankar Rao addressed the delegates. Earlier Dr. Sivaprasath, Convenor of the conference welcomed the gathering and Prof. V Muthupandi, Chairman of the organising committee proposed the vote of thanks.

Mr. R Easwaran, Fellow of the institute, former chairman of the chapter and General Manager – In – Charge of WRI, Labs and Quality of BHEL, Tiruchy was the chief guest of the valediction and he distributed the certificates and prizes. Addressing the gathering, Mr. R Easwaran outlined the research avenues in processing of the newer generation materials. Dr. S Jerome, Co-Convenor welcomed the gathering. Dr. D Sastikumar Dean R&C of NIT presided over the function. Dr. N Ramesh Babu Co-Convenor made the concluding remarks. Prof. Dr. S. Raman Sankaranarayanan, Chairman of the chapter proposed the vote of thanks.

**RADIANT 17**

The Tiruchirappalli Chapter conducted a one day workshop on “Recent Advances in Nano Technology – RADIANT 2017” on Feb. 23, 2017 at the Institutions Building, BHEL Township.

Mr. R Easwaran, Past Chairman of the chapter and General Manager – In- Charge (WRI, Labs & Quality) of BHEL inaugurated the programme. Mrs. A. Santhakumari, Vice chairperson & SDGM (WRI), BHEL presided over the function. Mr. N Parameswaran Hon Secretary welcomed the gathering. Dr. T Sriharsha convenor of the programme proposed the vote of thanks.

Prof. Somnath Roy of IIT Madras, Dr. N Ramesh Babu and Dr. T. Sivashankar of NIT and Dr AL Subramanian of TCE delivered lectures.

Besides, there were contributory papers from the delegates. The top three best presentations were awarded during the valediction.

Dr. Raman Sankaranaryanan, Chairman delivered the valediction address. Mr P Chellappandian and Mr. N. Rajasekaran, Vice Chairman offered their felicitations. Mr. K Raja, Hon. Treasurer proposed the vote of thanks. More than 55 delegates from various colleges across Tamil Nadu and from student chapters of the institute participated in the event and were benefitted.

**HANDS ON TRAINING IN TRADITIONAL INVESTMENT CASTING**

The students of CARE group student chapter has participated in “Hands on Training in Traditional Investment Casting”, which was jointly organized by IIM Student chapter of Department of Materials Science and Engineering, CARE Group of Institutions and Senthil Sirpa Kalai Koodam from Dec 26 – 31, 2016 at Kumbakonam with the support of the chapter. Students were made to understand the concepts of Traditional Investment Casting and gained a practical knowledge by making some idols like Peacock, Swan, Sword, Lotus, Flying Dragon, Cock, Guitar, Jar etc., It was quite different experience and environment for both students and Faculty. Metall congratulates Prof. Dr. K. Santhy for co-ordinating the event.

**WORKSHOP ON ADVANCEMENT IN CHARACTERIZATION TECHNIQUES**

The Indian Institute of Metals, Tiruchirappalli chapter in association with the Department of Materials Science and Engineering, CARE Group of Institutions organized a workshop on "Advancement in Characterization Techniques" on 20<sup>th</sup> and 21<sup>st</sup> February 2017. First day sessions covered about Introduction and applications of X-Ray Diffraction, Qualitative analysis of XRD and Practical demo by Dr. T. P. Pazhanivel, Periyar University and Dr. K. Santhy from CARE Group of Institutions. Second day sessions covered Introduction to Scanning Electron Microscopy, Mode of operation and influence on image contact, outline other Spectroscopy techniques and practical demo of SEM by Dr. Devarajan, KSR College of Technology, Tiruchengode, Dr. K. Santhy and Mr. M. Santhosh from CARE Group of Institutions. Totally 29 participants from 11 institutions are benefitted from this programme.

**METRON 2K17**

The chapter in association with the Materials Science Students Association (MSSA) of Department of Materials Science and Engineering and Student Chapter of Indian Institute of Metals at CARE group of institutions co-ordinately organized METRON 2K17 a two days programme at CARE premises. The symposium and workshop was conducted on 27<sup>th</sup> and 28<sup>th</sup> February 2017. The two day events covered

the areas like recent trends in Nano & Bio materials, Hybrid Materials, Welding in Automobile and Aerospace applications, Advancement in Automobiles and Bio-Energy revolution. Dr. S. Raman Sankaranarayan, Professor, NIT Tiruchy and Chairmen of IIM-Tiruchirappalli chapter inaugurated the function. Dr. A. Raja, former AGM of WRI & former Vice Chairman of the chapter, Mr. Saravanan of Airbus and Dr. K. Santhy of CARE delivered guest lectures on the theme of the workshop. Around 20 delegates were benefited from the programme.

### **INDUSTRIAL VISIT TO WRI**

On 23<sup>rd</sup> August 2016, an industrial tour to the Welding Research Institute was arranged for the benefit of student members of CARE - IIM Student chapter. 45 members attended the tour and went around the facilities at WRI.

### **INDUSTRIAL VISIT TO GB GROUP OF COMPANIES**

On 24<sup>th</sup> August 2016, an industrial tour to the GB group of companies, the reputed boiler and boiler component manufacturer, was arranged for the benefit of student members of CARE - IIM Student chapter. 45 members attended the tour and went around the facilities at GB Group of companies.

### **IIM DAY AT CHAPTER OFFICE**

The chapter celebrated the IIM DAY 2017 at its chapter office on 23<sup>rd</sup> February 2017 on the theme towards sustaining excellence in IIM. A good number of members including past chairmen of the chapter joined the meeting. The chapter members reiterated their commitment to the Indian Institute of Metals.

### **CHAPTER REPRESENTS CHAPTER CONCLAVE MEETINGS**

The chapter was represented by Mr. T. Thirugnanasambandam, former Secretary & NC member in the CRC Conclave held at Kolkata. Mr. Mr. Thirugnanasambandam made a detailed presentation about our activities and future plans. For the chapter conclave at Kanpur, the slides were sent from the chapter.

### **IIM TIRUCHY AT NATIONAL COUNCIL MEETINGS**

Dr. Raman Sankaranarayanan, Chairman attended one national council meeting and Mr. M Thirugnanasambandam attended one NC meeting at Kolkata.

### **EXECUTIVE COMMITTEE MEETINGS**

The Executive Committee of the chapter met eleven times on the following dates:

17.05.2016, 07.06.2016, 14.07.2016, 11.08.2016, 29.08.2016, 28.09.2016, 07.11.2016, 22.12.2016, 11.01.2017, 26.01.2017, 17.03.2017

### **VICE PRESIDENT'S VISIT TO CHAPTER**

ON 26<sup>th</sup> January 2017, Dr. U. Kamatchi Mudali visited the chapter office and interacted with the chapter EC. 18 EC members participated in the EC. Chairman IIM, Tiruchy chapter welcomed the Vice President to the chapter and extended a warm welcome to all the committee members and invitees.

Vice President addressed the EC and sought its support in making IIM vibrant. A brief was made to VP by the chapter on its activities and VP appreciated the same. The EC unanimously recorded its appreciation to VP for his visit and thanked him and Dr Parameswaran. The meeting concluded with vote of thanks by Mr. K Raja, Hon. Treasurer and followed by a dinner.

### INTERACTIVE SESSION WITH FORMER PRESIDENT

On 15<sup>th</sup> February 2017, the chapter in association with MME Department of NITT, Dept. of MME (NITT) and IIM Student chapter @ NITT, organised an interactive session with Mr. Pugazhendy, former president of IIM and Executive Director of ILZDA. It was an open session and Mr. Pugazhendy many queries raised by the members.

### METTLE 17

Mettle 17, The Annual National Level Technical Symposium conducted by the department of Metallurgical and Materials Engineering, NIT Tiruchy with the support of nit Student chapter and the chapter was conducted at NIT, Tiruchy complex from 24<sup>th</sup> to 26<sup>th</sup> March 2017. Mettle served as a common platform and hosts a series of activities like guest lectures, workshops, events, demonstrations for the benefit of community and better technological cohesivity within people of various walks in materials engineering. Our vice chairpersons Mrs. A. Santhakumari and Mr. N Rajasekaran conducted the quiz programme and distributed the prizes.

### METALL – e NEWSLETTER

Four issues of the In-house journal of the chapter METALL has been published as e newsletter and circulated to all members of the chapter. The e newsletter has drawn appreciations from senior members and NC members and even recommendations were given emulate the model.

### FREE LECTURE PROGRAMMES

Date, Venue and Partners	Title	Speaker
3 <sup>rd</sup> May 2016 @ WRI	Learnings from Fabrication of T 23 (2.25 Cr-1.6 W-V- Nb) Steel Tubes in Power Plant Application	Mr. R Easwaran, <i>General Manager (WRI &amp; Labs), BHEL</i>
15 <sup>th</sup> July 2016 @ Chapter office	Exciting manufacturing technology: Metal Additive Manufacturing	Dr. K. R. Ravi, <i>Associate Professor, PSG Institute of Advanced Studies, Coimbatore</i>
11 <sup>th</sup> August 2016 @ NITT	Additive Manufacturing	Dr Ashfaq Mohamed, <i>FACULTY and LEAD INVESTIGATOR, Advanced Manufacturing Institute, King Saud University Saudi Arabia</i>
22 <sup>nd</sup> November 2016 @ IEI with IIW, IWS and IEI	Friction Welding of Tube to Tube Plate using an External Tool	Dr. S. Muthukumaran, <i>Associate Professor, NITT, Tiruchy</i>
17 <sup>th</sup> January 2017 @ IEI with IWS, IE (I), IIW & ISNT	Energy Efficiency in Welding – Equipment, Processes, Practices and Environmental Impacts	Mr. V R Samuel, <i>DGM, BHEL, Tiruchy</i>
24 <sup>th</sup> January 2017 @ IEI with IE (I), IIW & IIIE	Synthesis of Al-MoO <sub>3</sub> composites through Optimized powder metallurgy parameters	Dr. M Ravichandran, <i>professor &amp; Director of Centre for Research of Chenduran CET</i>
7 <sup>th</sup> February 2017 @ IEI with IE (I) & IIW	Bio Materials	Dr. N Ramesh Babu, <i>Asst. professor, NIT, Tiruchy</i>

### PUBLICATIONS & LECTURE PROGRAMMES BY MEMBERS OF TIRUCHY CHAPTER

Our members delivered 22 Lecture programmes at various colleges/ institutions during the year. Besides more than 110 technical papers were presented / published by our members in various national / international fora.

### LAURELS TO OUR MEMBERS

Our members received the following awards / recognitions during the year.

- Mr. R Easwaran was conferred with the Honorary Fellow Membership of the Institute.
- Mrs. A. Santhakumari was conferred with three awards viz. Best Women Executive 2016 from SCOPE, Munnodi Penmani 2017 Award from Bharthidasan University and Eminent Women Engineer Award 2017 from IE (I), Hosur.
- Mr. N Rajasekaran was conferred with the Honorary Fellow Membership of IWS.
- Mr. R Selvaraj, Mrs. A Santhakumari and Mr. N Rajasekaran were elected as Fellows of the Institution of Engineers (India).
- Dr. S. Muthukumaran is the recipient of Award for Research Publications and Award for Research Projects from NIT, Tiruchy.
- Mr. P Govindaraju qualified as Level III IN NDE METHODS (ET, LPT, MPT, RT, UT & VT).
- Dr. Nagalakshmi reviewed two manuscripts for the Journal of Materials Engineering and Performance. The Editors of the Journal of Materials Engineering and Performance have appreciated the voluntary contribution in the online review process.
- Mr. B. Shanmugarajan received the Best Paper Award for his presentation in Research Colloquium at Hyderabad on Apr 9, 2016.
- Dr. R. Nagalakshmi, SM/WRI has received 'Honorable Mention' under Class 4 –Artistic Microscopy– Colour for her microstructure named 'New Planet 2k16' in the 2016 International Metallographic Contest conducted by International Metallographic Society of ASM International.
- Mr. Danesh Kant Verma and Mrs. A. Santhakumari received Republic Day awards from BHEL.

### ACKNOWLEDGEMENT

I sincerely thank Mr. R Raja Manohar our Patron and Executive Director & Mr. S Gopinath, former Executive Director, BHEL, Tiruchy for inspiring us with new directions and we record our gratitude to them. Under the stewardship of our Chairman Dr. Raman Sankaranarayanan, our chapter has achieved many laurels and achieved bench mark performances. All these laurels are the results of his concerted efforts, encouragement and guidance. Thank you very much Sir, for leading us to glory and to put the chapter as the loner in the summit. The active involvement, guidance and encouragement given by the Vice Chairmen of our Chapter Mr. P. Manoharan, Mr. P Chellappandian, Mrs. A. Santhakumari & Mr. N Rajasekaran made things possible during this year. Thank you sir. Our past chairman Mr. Easwaran's leadership in helped us in emerging as the winner in BPMMQ for the seventh successive year. Thank you sir.

My sincere thanks to Mr. K Raja, Treasurer and Dr. T Sriharsha, Joint Treasurer, for their excellent services. The executive committee members have played a key role in making this year eventful. I thank each and every one of them for their excellent support. I am highly indebted to our immediate past secretary Mr. G Rajendran and Mr. R Easwaran, Immediate past chairman for their unstinted support for the growth of the chapter. I am grateful to Dr. S. Sakthivel, Dy. Director of Boilers, Dr. T A Daniel Sahayaraj, Dy. Director of

Boilers and others for their wholehearted support to our workshops. I am thankful to our past chairmen especially Mr. G Uma Shanker and other senior members.

I sincerely thank the Chairman, Secretary and committee members of other professional bodies IWS, IIW, IE (I), CSI, ISNT and IIPE for their contributions in organising our chapter activities. We have worked hand in hand throughout the year. We are grateful to number of organisations for making all their resources at our disposal for our activities. To name a few, the BHEL, Tiruchy, NIT, Tiruchy, JCET, MAMCE, MAMCET, SACET, CARE, CECRI Karaikudi, etc. On behalf of the chapter I am expressing our sincere thanks to Director of NITT, HOD and staff members of Department of Metallurgical & Materials Engineering for their active participation and support to our activities. I would like to acknowledge the active role played by CARE group student chapter in organizing programmes during the year. I am thankful to the management, Principal and faculty of CARE group, Jayaram College of Engineering Technology, MAM College of Engineering, Sri Angalamman College of Engineering and Technology, MAM College of Engineering and Technology for their kind support extended to the chapter. I record our appreciations and thanks to the office bearers of the student chapters of NITT, JCET, MAMCE, JJCET, SACET, CARE and MAMCET.

I will fail in my duty, if I am not going to record the unstinted support and co-operation by the managements, principals, head masters and staffs of the following schools, who were readily agreed to our request to conduct the preliminary rounds of TMAQ @ 25.

- Azad Girls MHSS, Maiyladuthurai
- Sankar Higher Secondary School, Sankar Nagar
- Jawahar Matriculation Higher Secondary School, Neyveli
- Madurai Meenakshi Matriculation Hr. Sec. School, Madurai
- Cheran Matric Higher Secondary School, Karur

I am grateful to the entire TMAQ @ 25 team and especially Mr. R. Easwaran, Prof. Raman Sankara Narayanan, Mrs. A. Santhakumari, Mr. N. Rajasekaran, Mr. K. Raja, Mr. M Jayaraj, Mr. MT Sambandam, Mr. Govindaraju, Mr. K E R Chari, Mr. P Chellappandian, Dr. K. Santhy, Mr. K Rajasekar and others who made it possible for our team to be the Participation in the international BPMM Quiz. I appeal them to work more vigorously to retain the awards this year also.

I am thankful to Dr. V Muthupandi, Dr, K Sivaprasad for conducting IMME 17 successfully. I record my appreciations and thanks to Dr. K. Santhy, Mr. R Subbarayalu, Dr. T Sriharsha, Mr. N Rajasekaran, Mrs, A. Santhakumari, Mr. B Shanmugarajan, and Mr. K E R Chari for their contributions in organising many events during the year. I am expressing our profuse thanks to the senior executives of BHEL, WRI & other Industries for their support and encouragement. I thank Mr. Athimoolam Selvaraj, Mrs. Pramila Mary & Mr. N. Subramanian for their support for the execution of our activities. I thank our auditor Mr. S. V. Seetharaman for auditing our accounts and preparing the statement of accounts for the year 2016 - 17. I am thankful to our sponsors and supporters.

I would like to thank every one of you for the excellent support and co-operation extended towards the activities of our chapter and requests you to continue the same for the coming years also so that our chapter will scale newer peaks in the forthcoming years.

Thank you one and all.



( N. Parameswaran )