

September 2016, Volume 1, Number 8

### Contents

Members in the News

Publications by Members

7 Book Review 10 Members Speak

# Members in the News



#### Dr M P Sukumaran Nair, FIE

Council Member, IEI; Former Special Secretary to Chief Minister, Kerala and Managing Director, Travancore Titanium Products Ltd.

Appointed as Chairman of the Public Sector Industries Restructuring and Audit Board of the Government of

Kerala, an apex authority over 42 state level public undertakings. The assignment includes fostering investment, promotion, setting up of new industries and professional training of executives.

#### Dr PUdhayakumar, FIE

Professor & Head, Department of Mechanical Engineering and Training and Placement Officer, KLN College of Engineering, Pottapalayam, Tamilnadu



Received "Best Training and Placement Officer Award" at the 4th National Summit on 'Sustainable Institute Industry Partnership' held during July 21-22,

2016 at India International Centre, New Delhi, in recognition of his contribution of effective Institute-Industry Linkages.



#### Mr Vinod Mishra, AMIE

Technical Officer, Optical Devices & Systems, CSIR-Central Scientific Instruments Organisation & Research Scholar, Instrument Design Development Centre, IIT Delhi

Delivered a talk on "Limitless Stepladders in the Field of Science and Engineering in India for Diploma Holder" on the occasion of National Science Day held at Chandigarh College of Engineering and Technology on March 17, 2016, to motivate the diploma students for higher education and research.

#### Mr A K Saxena, FIE, C Engg India

Former Chairman, SEAC, Jharkhand, Past Chairman, Jharkhand State Center & Council Member, IEI

Taken over as President of Lions Club, Dhurwa, Lion District 322 A on July 10, 2016.



#### Prof PO J Lebba, MIE

Former Principal, T K M College of Kollam Engineering, Kollam

Received "Prof. G Kalyanaraman Memorial Excellence Award" from Mr V Rajendrababu, Honorary Mayor of Kollam Municipal Corporation on August 13, 2016. He



was felicitated for his remarkable contributions in the field of technical education on the occasion of the Silver Jubilee Reunion Function – Reconnect 2016, organized by TKM College of Engineering, Kollam.

#### Dr B S L S K V Ch S Varma, MIE

Lecturer in Mechanical Engineering, Government Polytechnic, Amadalavalasa, Andhra Pradesh.



Obtained PhD on the topic "Analysis of Lean, Agile and Leagile Supply Chain Enablers for Food Industry"

from National Institute of Technology, Tiruchirapalli under the guidance of Prof A Noorul Haq, FIE, Production Engineering Department, NIT, Tiruchirapalli during the 12th Convocation of NIT, Tiruchirapalli on July 30, 2016.

#### Mr Vinay Kumar Shukla, MIE

Dy. Manager, Instrumentation Department, National Fertilizer Limited

Honoured by the Executive Director of National Fertilizer Limited, Vijaipur, Guna, MP on August 15, 2016 for his useful suggestion on plant operation.

# Members in the News



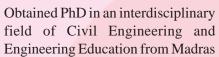
#### Dr Jaikaran Singh, AMIE

Obtained PhD on the topic "Design of Toxic Gas Measuring Instrument using Optical Fibre Bragg Grating" from Rajiv Ganhi Proudyogiki Vishwavidyalaya, Bhopal under the guidance of Dr Anubhuti Khare, DoEC, UIT, Rajiv Ganhi

Proudyogiki Vishwavidyalaya, Bhopal, Madhya Pradesh on February 29, 2016.

#### Dr PPurushothaman, MIE

Former Professor, Department of Civil Engineering, VELTECH Technical University, Avadi, Chennai



University through National Institutes of Technical Teachers' Training and Research (NITTTR), Chennai on the topic "A Study on Effectiveness of Training of Construction Workers in Tamilnadu" on June 15, 2016.



#### Mr Biman Gati Gupta, FIE

Programme Coordinator, WBADMIP, Government of West Bengal, (World Bank financed Project)

Selected as the Speaker at World Environmental and Water Resources Congress 2016 held at West Palm

Beach Convention Centre, Florida, USA during May 22-26, 2016 and delivered two lectures on the topics "Environmental Pollution and Hazards" and "Waste Water and Waste Water Management".



#### Dr Jayanta Saha, AMIE

Deputy General Manager Institute for Steel Development & Growth, Kolkata

Received "Shri S K Seshadri Memorial Mascot National Award" 2016 from Electrochemical Society of India, Bangalore on the occasion

of National Symposium on Electrochemical Science and Technology for his outstanding contribution in 'Applied Research on Structural Steel Corrosion Protections'.



Senior Manager Operation, Sasan Power Limited

Received Excellent Professional Achievement Award (Class 1) for his contribution in the field of

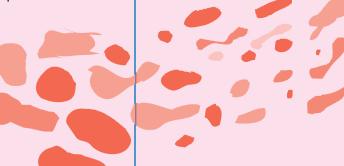


Engineering Technology and Management Science by Society of Professional Engineers India, Chennai at Coimbatore on August 28, 2016.

#### Mr Madhu PPillai, FIE

Honored as Fellow of Association for the Advancement of Cost Engineering (AACE) International, a leading non-profit professional organization. He is the first Asian to be awarded as the ACEI Fellow in the 60 years history of this association.





## **Publications**

# by Members

#### Mr S Sridhar, MIE

Associate Professor, Channabasaveshwara Institute of Technology, Tumkur, Karnataka

**1. Title of Paper:** "Degradation Analysis in Tensile Property after Accelerated Moisture Diffusion in Glass Fibre Reinforced Composites", *International Journal of* 



Mechanical and Production Engineering, Vol 3, Issue 11, November 2015, pp 126-134.

Co-author: Prof Subhasis Maji

**2. Title of Paper:** "Fatigue Durability Analysis of Glass Fibre Reinforced Epoxy Composite laminate and Damage Estimation

and Loading Prediction", International Journal of Mechanical and Production Engineering, Vol 3, Issue 10, October 2015, pp 107-110.

Co-author: Prof Subhasis Maji

**3. Title of Paper:** "Durability Analysis of Glass Fibre Reinforced Epoxy Composite Laminate after Moisture Diffusion by Accelerated Testing and Life Prediction", *International Journal of Mechanical, Robotics and Production Engineering, Vol V, Issue IX, September* 2015, pp 37-45.

#### Mr Vinod Mishra, AMIE

Technical Officer, Optical Devices & Systems, CSIR-Central Scientific Instruments Organisation & Research Scholar, Instrument Design Development Centre, IIT Delhi

1. Title of Paper: "Experimental Investigation on



Uncontrollable Parameters for Surface Finish during Diamond Turning", Materials and Manufacturing Processes Vol 30, Issue 2, 2015, pp 232-240.

Co-authors: Neha Khatri, Keshva Nand, Karanvir Singh and Rama Gopal V Sarepaka.

**2. Title of Paper:** "Precision Machining of Polycarbonate Optics by Diamond Turning", *Proceedings of International Conference on 'Optics & Photonics 2015 (ICOP 2015)'*, the Golden Jubilee Conference of the Optical Society of India (OSI), organized by Department of Applied Optics and Photonics, University of Calcutta held at Kolkata during February 20-22, 2015.



#### Mr Y R Rao, FIE

Former General Manager, Mine Shaft Design and Construction Planning Division, CMPDIL HQ, Coal India Limited

**Title of Paper:** "Aspect of Structural and Civil Engineering in 'Deep Shaft Mine' Construction", *Journal New* 

Building Material & Construction World (NBM&CW), New Delhi, Vol 21, Issue 12, June 2016.

#### Prof S Vijaya Bhaskar Reddy, MIE

Head, Department of Civil Engineering, CMR Technical Campus, Kandlakoya (V), Medchal Road, Hyderabad

**1. Title of Paper:** "Comparative Study on the Design of Square, Rectangular and Circular Concrete Water



Tanks", International Journal of Engineering Research and Applications, Vol 5, Issue 6, Part 5, June 2015, pp 117-121.

Co-authors: S Raja Shekar, P Sriniyasa Rao

**2. Title of Paper:** "Comparison of Compressive Strength of Ordinary

Portland Cement Concrete with Fiber Reinforced Concrete", *International Journal of Modern Trends in Engineering and Research*, Vol 2, Issue 6, June 2015, pp 79-83.

Co-authors: Vamshi Krishna Goud, P Srinivasa Rao

#### Dr Gurudutt Sahni, MIE

HOD & General Manager of Department of Design, Drawing & Development Leader Valves Ltd JAL(PB)

1. Title of Paper: "Optimization and Modelling of



Equilizing Flow Globe Valve for Structural Integrity Against Fluidic Loads", International Journal of Research in Engineering & Technology, Vol 4, Issue 8, August 2016, pp 13-18.

Co-authors: Rahul Kaundal, Harvinder

**2. Title of Paper:** "A Review on Optimization of Gating System in Metal Casting", *International Journal of Research in Engineering & Technology, Vol 4, Issue 6, June 2016, pp 21-26.* 

Co-authors: Sandeep Singh, Dr Lakhwinder Pal Singh

## **Publications**

# by Members

#### Mr Pavan M S, AMIE



Title of Paper: "Modelling and Simulation of Aircraft Nose Wheel Steering System", Proceedings of 39th National Systems Conference (NSC) organized by Shiv Nadar University, Uttar Pradesh held at Noida during December 14-16, 2015.

#### MrAbhishek Roy, AMIE

Designer, Sparrows Offshore Services India Pvt. Limited

**1. Title of Paper:** "Aqueous Corrosion of Steel at Hooghly Stretch of Ganga River", *International Journal* 



for Research in Applied Science & Engineering Technology (IJRASET), Vol 3, Issue 10, October 2015.

- **2. Title of Paper:** "Utilization of Air Lubrication Technology in Ship Industry", *Journal of Engineering and Interdisciplinary Research*, Vol 2, Issue 2, 2015, pp 1-4.
- **3. Title of Paper:** "Study of Air Pollution and Respiratory Health Effects on Human and Plant Species", *International Educational Scientific Research Journal*, Vol 1, Issue 2, December 2015.



#### Mr Satyendra Kumar Singh, FIE

**Title of Paper:** "Indian Petroleum Industry: Upstream-Downstream Imbalance", *Process Worldwide Subcontinent Edition, June 2015, pp 32-35.* 



#### Mr Khan Sohel Rana, MIE

Title of Paper: "Design and Simulation of NFC Printed Antenna in Near Field Wireless Communication for SDC", published in 2016 IEEE International Conference on Distributed Computing, VLSI,

Electrical Circuits and Robotics organized by NITK Surathkal held at Mangalore during August 13-14, 2016.

Co-author: Dr Sayyad Ajij D

#### Mr Arup Kumar Mandal, AMIE



Department of Metallurgical Engineering, Indian Institute of Technology, (Banaras Hindu University), Varanasi, UP

**1. Title of Paper:** "Utilization of Lime Fines as an Effective Binder as well as Fluxing Agent for Making Fluxed Iron Ore Pellets", *Journal of* 

The Institution of Engineers (India): Series D, Vol 97, Issue 1, January–June 2016, pp 69–75, DOI: 10.1007/s40033-015-0079-3.

Co-authors: Alok Sarkar, Om Prakash Sinha

**2. Title of Paper:** "Recovery of Multi Metallic Components from Bottom Ash by Smelting Reduction under Plasma Environment", *Metallurgical and Materials Transaction B, Vol 47B, February 2016, pp 19-22, DOI: 10.1007/s11663-015-0484-x.* 

Co-author: Om Prakash Sinha

#### Dr Nabnit Panigrahi, MIE



Assistant Professor, Department of Mechanical Engineering, Gandhi Institute for Technology, Bhubaneswar, Odisha

**Title of Paper:** "Energy and Exergy Analysis of a Diesel Engine Fuelled with Diesel and Simarouba Biodiesel Blends", *Journal of The Institution of* 

Engineers (India): Series C, August 2016, DOI 10.1007/s40032-016-0335-9.

#### Dr B Jeyaprabha, MIE



Associate Professor, Department of Civil Engineering, Fatima Michael College of Engineering and Technology, Madurai

**1. Title of Paper:** "Strength and Micro Structure of Mortar with Sand Substitutes", *GRA EVINAR*, *Vol 68*,

Issue 1, 2016, pp 41-49, DOI: 10.14256/JCE.1245.2015.

**2. Title of Paper:** "Effects of Elevated Temperature and Water Quenching on Strength and Microstructure of Mortars with River Sand Substitutes", *Construction & Building Materials, Vol 114, July 2016, pp 688-698.* 

## **Publications**

# by Members

#### Mr Muttipati A Srinuvasu, AMIE



Assistant Professor, Department of Computer Science and Engineering, Baba Institute of Technology and Sciences, Visakhapatnam, India

**Title of Paper:** "Class-Oriented Model Graph Design Based on Abstract Syntax Tree", *International Journal of Computer Science and* 

Communication (IJCSC), Vol 7, Issue 2, March-September 2016, pp 157-168.

#### Mr Prabhat Kumar Dhara, FIE

1. Title of Paper: "Salient Aspects and Critical Parameters to be considered in Optimized Design of Fire Hydrant Systems for Fire Hazards in Indian Conditions", International Journal of Engineering Studies and Technical Approach, Vol 2, Issue 6, June 2016, pp 11-19.



**2. Title of Paper:** "Parametric Evaluations Of Liquid Flow In Capillary Tube Under Variable Heads Through Computational Fluid Dynamics Methods", *International Journal of Multidisciplinary Research Review, Vol 1, Issue-10, December 2015, pp 28-33.* 

Co-author: Subhadip Dey

3. Title of Paper: "Optimizations of Design and Layout of Automatic Sprinkler Fire Extinguishing Systems through Computations for Moderated Fire Hazard Areas in Processing and Manufacturing Industries under Global Environment", International Conference on 'Recent Trends in Engineering and Materials Sciences' organized by Jaipur National University, Rajasthan, held at Jaipur during March 17-19, 2016.

#### Mr Dipankar Das, AMIE



**Title of Paper:** "Visualization of Performance of Binary Search in Worst Case in Personal Computer using Semi Parametric Technique", *International Journal for Scientific Research & Development, Vol 4, Issue 5, July 2016, pp 1236 - 1239.* 

#### Mr Ravindra Kumar Yadav, AMIE

Assistant professor, Department of Electrical Engineering, Babaria Institute of Technology, Varanama, Vadodara, Gujarat



1. Title of Paper: "An Investigative Study about Restructuring of Indian Power Market", International Journal for Research in Applied Science and Engineering Technology (IJRASET), August 2016, Vol 4, Issue VIII, pp 420-425.

**2. Title of Paper:** "An Investigative Study about Deregulation (Restructuring) of Indian Power Sector", *International Journal for Innovative Research in Multidisciplinary Field, Vol 2, Issue 8, August 2016, pp 129-134.* 

**3. Title of Paper:** "A Comprehensive Study about Deregulation of Indian Power Sector", *International Journal for Scientific Research & Development, Vol 4, Issue 6, 2016, pp 321-325.* 



#### Mr Basant Kumar, FIE

Deputy General Manager (Electrical), Oil& Natural Gas Corporation Ltd, Mumbai

**Title of Paper:** "Harmonics-Causes and Effects', *Electrical India*, *Mumbai*, *August 2016*, *pp 60-62*.



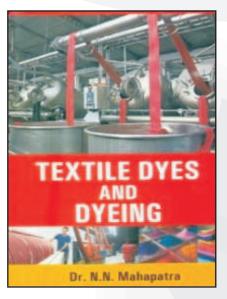


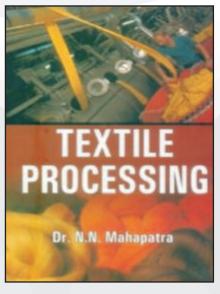


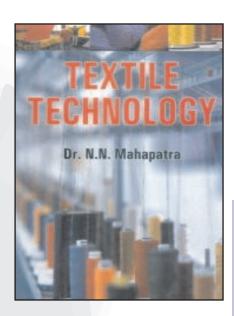
#### Dr N N Mahapatra, FIE

President, Colorant Ltd, Ahmedabad

Publisher: APH Publishing Corporation, New Delhi







### **Textile Dyes and Dyeing**

The book is written based on the 30 years of practical experience of the author, working in various textile mills (dye house) in India and abroad. This book will be very helpful to textile students to know various processes in the textile industries. It will also be helpful to the supervisors, working on the shop floor of various dye houses and process houses. The book deals with almost all types of dyes mainly used in textile industries. The application of dyes on various types of substrate/fibre is also highlighted. It also mentions about the pigments and the optical whiteners. The author explains one of the latest subjects in printing known as Ink Jet Printing. Some new developments in reactive dyes like Fluorine based chemistry and its applications on wool are also discussed in this book.

### Textile Processing

The wide experience of the author on modern topics which he shares with the textile audiences in many textile conferences in India and abroad. This book will be very helpful to textile students, textile scientists, textile research scholars and textile designers who are the thinkers and future of Indian Textile Industries. He has attended to various burning problems in textile industries. He has discussed the different types of fabrics processing in the textile industries. He has highlighted different methods for trouble shootings in dyehouses. His varied shopfloor experience has been put on paper and it will help the dyeing technicians to solve their own problems. This book will assist all technicians to approach any type of problem occurred in process house and dye houses.

### **Textile Technology**

This book will be helpful to students, scientists, research scholars, who are working in the field of textile engineering. They can try to implement various processes of latest textile technologies, which are described in this book. It will also be helpful to senior executives of textile mills to know what are the latest developments in textiles been taken place. The book deals with many new and latest developments taking place in the textile industries. It will help the research & development departments of Textile Mills to take up few modern topics as a project and work on it. Some of the technologies are already being used in textile industries and some are on pilot stage. After few years, the rest of the technologies will come into use.



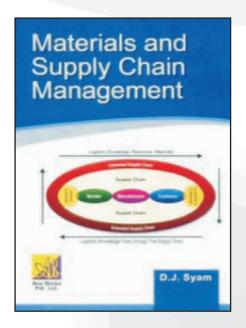


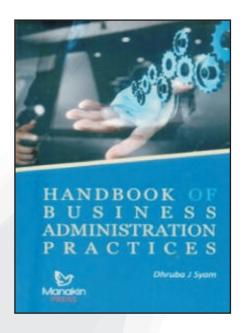


#### by Mr D J Syam, MIE

Consultant-ISO-9001/TQM, INDL Projects

Publisher: Manakin Press Pvt Ltd, New Delhi





### **Materials and Supply Chain Management**

The primary objective of this book is to serve as a graduate textbook for the students of Business Administration and Engineering with particular emphasis or Materials Management, Business Logistics and Supply Chain Management.

This book can also serve as a useful guide for young professionals (Engineers, MBA's, CA etc.) who aspire to make a successful managerial career with corporate enterprises where materials resources play a vital role in achieving viable sustenance with credible results. Since the cost of materials constitutes a substantial portion in the cost of saleable products, there is an imperative need to manage material resources efficiently, effectively and optimally. In the era of globalized competitive business environment, the deployment of trained and competent materials management personnel will be one of the priority considerations for the manufacturing as well as the retail sector business enterprises. The book seeks to provide the fundamental knowledge inputs to the upcoming business managers and professionals.

#### Handbook of Business Administration Practices

This book is primarily meant to serve as a management training and development guide for young professionally qualified graduates/post graduates (engineers, MBAs, CAs, and such others) who aspire to make a successful career in the fields of Corporate Business Administration. Laid out in twenty five chapters, with fourteen annexures and number of illustrative diagrams/graphs etc., the topics dealt with various functions and activities that are carried out in medium and large industrial and commercial organizations. The emphasis is on pratice oriented knowledge inputs that will help the young upcoming managers to acquire professional competence and functional confidence at an accelerated pace so as to be able to make productive contributions right from the beginning days and weeks of employment, thus meeting the expectations of the higher-up management, without much of a close mentoring from their side. The book is based on author's over 40 years of professional working experience with large industrial houses, as well as long association with reputed professional institutions. This is author's sixth book in the service in the field of industrial and business administration.



### Review



### C Programming with Solved Problems by Dr PSojal Lal, FIE

Director, Asian Institute of Petroleum and Construction Technology (AIPCT)

(An ISO 9001:2008 Certified Organisation) Affiliated to : National Centre for Labour and Learning Cochin, Kerala

C is a general purpose, high-level procedural language. It was designed to be compiled using a compiler to provide low level access to memory, to provide language constructs that map efficiently to machine instructions and to require minimal run time support. C is therefore useful for many applications that had formerly been coded in assembly language.

C is widely available and the compilers, libraries and interpreters of other programming languages are often implemented in C. The primary implementations of Python, Perl 5 and PHP are all written in C.

Chapter 1 of this book shares the fundamentals of C programming. The second

Chapter introduces the learner to C programming. The Control Statements are introduced in Chapter 3 and moves to Advanced Control Statements in Chapter 4. The Arrays are explained in Chapter 5. Chapter 6 takes care of the functions. Chapter 7 goes into the details of String Handling. Chapter 8 gives detailed information on Structure & Union. Chapter 9 teaches about pointers. Files are explained in detail in Chapter 10. The advanced topics in C like typedefs, enumerated data types, command line arguments, macros and pre-processors are taken care in Chapter 11. Ample solved programs are provided in each Chapter.

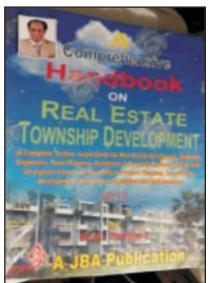
Co-author: Jeeva Jose, Edwin Basil Lal

Publisher: Atlantic Publishers & Distributors (P) Ltd., New Delhi



#### by Mr N K Sehgal, FIE

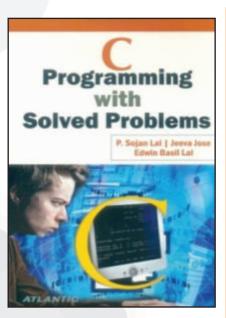
The book is a complete techno-legal guide for engineers, town planners, architects involved in planning of Mini Township & their infrastructure. The author had been directly in charge (for 26 years) as President of Ansal Properties & Industries Ltd. The department was involved in planning of residential, commercial, industrial, mini



cities /colonies including designing & developing their urban services such as roads, water supply, sewerage systems, storm water, disposal system, street lighting, solid waste management etc, besides city requirements of adequate schools, colleges, dispensaries/health centers, nursing homes, local commercials, hospitals, police post/station, religious buildings, taxi stands, bus stands, club/community centers, sub post offices, electric substation clinics, parlers, ATMs with in commercials ,vegetable/milk booths, telephone exchanges, fire stations etc.

This book deals with processes involved that is land selection, assemblage, its survey/environment study, layouts (including provision for EWS/LIG flats & group housing), road designs, cross sections demarcation plans zoning plans, water supply design, sewerage design & storm water drainage design, electric street lighting, rain water harvesting. Planning/design/execution of colonies like Palam Vihar, Sushant Loks, Essentia in Gurgaon, Sonepat, Panipat, Jaipur, Yamuna Nagar, Lucknow, Noida etc involve author's/books technologies.

Publisher: A JBA Publishers, New Delhi



# Members

For the past few months, I am regularly reading the e-Newsletter IEI Epitome. It is very informative and interesting. It is very good to see our member publications and articles.

#### Mr S Sridhar, MIE

Associate Professor, Channabasaveshwara Institute of Technology, Tumkur, Karnataka

as an AMIE graduate, I am very delighted to see the IEI Epitome newsletter covered the Members' achievement, latest Publications & Book review. I like to congratulate the highly

# Speak

qualified team for bringing out the IEI Epitome newsletter.

#### Prof S Vijaya Bhaskar Reddy, MIE

Head, Department of Civil Engineering, CMR Technical Campus, Kandlakoya (V), Medchal Road, Hyderabad

Epitome is a good effort to highlight the distinguished work of our members. It encourages members to be more active. All the best for its success.

#### Mr C S Mital, FIE

CPM, PNB Project Zone, CPWD, level 1, East Block 1, R K Puram, New Delhi







### **31**st Indian Engineering Congress

December 15-18, 2016

Theme:

SMART Technologies for Natural Resource Conservation and Sustainable Development

Organized by:

The Institution of Engineers (India)

Hosted by: West Bengal State Centre

#### Venue:

Hotel J W Marriott
4A, J B S Haldane Avenue, Kolkata 700105, India

Contact: Organising Secretary, 31st Indian Engineering Congress, The Institution of Engineers (India), West Bengal State Centre, 8 Gokhale Road, Kolkata 700020, Tel: 033-2223 8230/8914;

Fax: 033-22238345; email: ieckolkata@gmail.com

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### IEI epitame

President: Mr H C S Berry

Editor: Maj Gen S Bhattacharya, VSM (Retd)

Associate Editor: Mr S Chaudhury

Special Contributors: Mr N Sengupta, Mr K Sen, Dr S Ghosh, Mr T Chakraborty, Ms A Dutta, Ms S Biswas Sett, Mr T K Roy,

Ms H Roy, Mr S Bagchi, Ms P Nath Telephones: 91-33-2223 8311/14/15/16

E-mail: newsletter@ieindia.org Web: http://www.ieindia.org