# ANNUAL REPORT 2015-2016



THE INDIAN SCIENCE CONGRESS ASSOCIATION 14, DR. BIRESH GUHA STREET, KOLKATA - 700 017

### Published by:

The Indian Science Congress Association 14, Dr. Biresh Guha Street, Kolkata - 700 017

#### Printed at:

M/s T.C.Dutta Merchants Pvt. Ltd. P-23/24, Radha Bazar Street, Kolkata – 700 001

### **CONTENTS**

PREFACE	Page
PROFILE OF THE INDIAN SCIENCE CONGRESS ASSOCIATION	1-2
THE HUNDREDTH THREE SESSION OF INDIAN SCIENCE CONGRESS	3
Inaugural Session	3
Children Science Congress	3
Women's Science Congress	4
Science Communicators' Meet (SCM)	5
Science Exhibition : Pride of India Expo-103 <sup>rd</sup> ISC	6
Valedictory Session	6
Technical Programmes	7
Activities in Sections	13
ISCA Endowment Awards/Lectures	13
Major Recommendations	15
OTHER ACTIVITIES	
ISCA Chapters	23-26
Celebration of Hindi Programme	27
Publications	27
OTHER ITEMS	
ISCA Meetings	27
ISCA Representation in other Organizations	28
Membership	29
Organizational Set-up	29-30

	Page
ACKNOWLEDGEMENTS	31
ANNEXURE -I Title of Addresses of Sectional Presidents of 103 <sup>rd</sup> ISC Session	32-33
ANNEXURE -II Platinum Jubilee Lectures of 103 <sup>rd</sup> ISC Session	34-35
ANNEXURE -III Titles of Symposia on specialized topics organised by the Sections of 103 <sup>rd</sup> Indian Science Congress	36-37
ANNEXURE -IV List of Young Scientist Awardees for the year 2015-2016	38-39
ANNEXURE -V List of Best Poster Presentation Awardees for 2015-2016	40-42
ANNEXURE -VI List of infosys Foundation - ISCA Travel Awardees for 2015-2016	43
APPENDIX -I Members of the Council for 2015-2016	44-45
APPENDIX -II Members of the Council for 2016-2017	46-47
APPENDIX -III Personnel	48
APPENDIX -IV General Presidents of ISCA	49-55
APPENDIX -V General Secretaries of ISCA	56
APPENDIX -VI Treasurers of ISCA	57
AUDIT REPORT & ACCOUNTS	59-89

## **PREFACE**

March 31, 2016 marked the completion of the 103<sup>rd</sup> year of The Indian Science Congress Association. The 103<sup>rd</sup> Indian Science Congress was held at Mysuru under the auspices of the University of Mysore, from January 3-7, 2016. Shri Narendra Modi, Hon'ble Prime Minister of India, inaugurated the Congress on 3<sup>rd</sup> January. Dr. Harsh Vardhan, Hon'ble Union Minister of Science & Technology and Earth Sciences, Government of India delivered his speech. Dr. Ashok Kumar Saxena, General President of ISCA delivered his address on the Focal Theme "Science and Technology for Indigenous Development". The inaugural function was attended by a large number of foreign scientists, distinguished scientists, academicians, Vice-Chancellors of various universities, Members of Parliament, senior functionaries from State government and Central government, representatives from industry, students and scholars.

There were Plenary Sessions, Panel Discussions and Public Lectures devoted to different facets of the Focal Theme in which Nobel Laureates, many eminent scientists, technologists, policy-makers, industrial executives from industrial sector and social activists participated. Following the past tradition, Symposia on different interesting topics were organized in 14 sections besides the Platinum Jubilee Lectures which constituted a significant component of the entire programme. Invited Lectures and Paper Presentations (through Posters/Oral) organised in different sections were highly applauded.

Infosys ISCA Travel Awards were presented to the school children and special emphasis was given on ISCA Young Scientists' Programme in sections and the awards were presented to Young Scientist Awardees. A large number of students from the neighbourhood schools and colleges visited and participated in the Children Science Congress.

Apart from this the 9<sup>th</sup> Rashtriya Vigyan Sancharak Sammelan (Science Communicators') was organised with support from NCSTC, DST, New Delhi, where Science Communicators selected from different Chapters of ISCA participated.

The 5<sup>th</sup> Women Science Congress was organised on the theme "Science and Technology for Indigenous Development of Women in India" where women scientists from all over the country participated.

The Valedictory programme of 103<sup>rd</sup> session concluded on January 7, 2016, in which the following dignitaries were present on the dias: His Excellency Shri Vajubhai Rudabhai Vala, Governor and Chancellor Karnataka, Shri H.D. Deve Gowda, Hon'ble Former Prime Minister and Member of Parliament, Shri. T.B. Jayachandra, Pro-Chancellor, Hon'ble Minister for Higher Education, Law and Parliamentary Affairs, Karnataka, Dr. Ashok Kumar Saxena, General President, ISCA, Prof. K.S. Rangappa, Vice-Chancellor, University of Mysore, Prof. D. Narayana Rao, General President -Elect, ISCA, Prof. Arun Kumar, General Secretary (Scientific Activities), ISCA, Dr N B Basu, General Secretary (Membership Affairs). On this occasion the Young Scientist Awards and Best Poster Awards were also presented.

Twenty eight ISCA Chapters continued their activities during the year under report by organising seminars, symposia, lectures, quiz contests, etc. Among various activities, the Chapters observed National Science Day, World Environment Day, World Wetland Day, Earth Day, National Technology Day, World Health Day, World AIDS Day, National Children Day, Teachers Day, etc. The Chapters organised National Seminars on Focal Theme of 103<sup>rd</sup> ISC.

The Association feels greatly honoured for receiving active financial support from Department of Science & Technology, Govt. of India, to carry out many of its intended activities and to execute improvements over its existing infrastructure. Attempts are being made to expand resource base and improve the fund position by effective fiscal management. The strength of Association lies in the strong support being received from its members. I am confident that with this support, the Association will be able to fulfill its objectives in a bigger way.

(Prof. Gangadhar)

General Secretary (Membership Affairs) The Indian Science Congress Association

21<sup>st</sup> September, 2016

# PROFILE OF THE INDIAN SCIENCE CONGRESS ASSOCIATION

The Indian Science Congress Association (ISCA) is a premier scientific organization of the country established in 1914. ISCA has been promoting science and inculcating the spirit of science through its multifarious activities. ISCA meets in the first week of January in an Annual Congress of scientists, science administrators, policy makers and the general public to give a stronger impulse and a more systematic direction to the scientific inquiry, to promote the interaction of societies and individuals interested in science in different parts of the country and to obtain a more general attention to the objects of pure and applied sciences. ISCA brings together scientists both from India and abroad for mutual interaction in the cause of national development. Annual Congress of the Association has been held every year ever since 1914 with a very distinguished scientist as its General President.

The Association was formed with the following objectives:

- 1. To advance and promote the cause of Science in India;
- 2. To hold an annual Congress at a suitable place in India;
- 3. To publish such proceedings, journals, transactions and other publications as may be considered desirable;
- 4. To secure and manage funds and endowments for the promotion of Science including the rights of disposing of, or selling all or any portion of the properties of the Association;
- 5. To do and perform any or all other acts, matters and things as are conducive to, or incidental to, or necessary for, the above objectives.

Since its foundation, the Association has steadfastly worked to uphold its lofty objectives. The scope of its activities has expectedly increased many fold since 1914. The first Session of the Congress was held during January 15-17, 1914 at the premises of The Asiatic Society, Kolkata, with the Honourable Justice Sir Asutosh Mookerjee, the then Vice-Chancellor of the Calcutta University, a General President. One hundred and five Scientists from different parts of India and abroad attended and papers numbering 35 were divided into six sections; Botany, Chemistry, Ethnography, Geology, Physics and Zoology under six Sectional Presidents. From these relatively modest beginnings ISCA has grown into a strong fraternity with nearly thirty five thousand members – who participate in fourteen different sections of the Congress. The number of papers communicated for presentation has risen to more than one thousand five hundred. After independence ISCA has been actively interacting with various foreign Scientific Academies/Associations, namely, British Association for the Advancement of Science, American Association for the Advancement of Science, French Academy of Sciences, Bangladesh Academy of Sciences, Sri Lanka Association for the Advancement of Science, Beijing Association for Science & Technology and others with a view to have a fruitful interactions on topics of mutual interest.

The year 1976 witnessed a significant departure in the trend of deliberations during the Congress. It was being felt for sometime that such a gathering of scientists, covering a wide spectrum and seized of national issues that have scientific and technological implications to adopt a cogent theme every year. In 1976, Dr. M.S. Swaminathan, the then General President of ISCA, introduced the concept of Focal Theme of national relevance which is now discussed at an Annual Session of the Indian Science Congress. Further, several plenary sessions are organised around various facets of the Focal Theme in which scientists and technologists as well as policy makers and administrators interact with one another. ISCA has thus become an important platform where members from different disciplines and from different walks of life contribute to discussions on the Focal Theme.

Another significant breakthrough was made in 1980, when the Department of Science and Technology, Government of India, set up a permanent Task Force involving representatives of ISCA and chiefs of different agencies and voluntary organizations. Chaired by the Secretary, DST, as being responsible for follow-up action on various recommendations on the Focal Theme. Every year followup actions on recommendations made in the previous Science Congress are discussed at a General Session organized by DST during the Science Congress. Through this process, the Indian Science Congress Association has been contributing to the development of Science in general and National Science Policy, in particular.

ISCA introduced a programme for the benefit of young scientists from its 68<sup>th</sup> Session in 1981. The Programme enables young scientists to present their proposed research work with opportunities to exchange ideas in the relevant scientific problems with their counterparts and specialists. For the best presentations, such young scientists are given the ISCA Young Scientist Award. The Young Scientist Award has been enhanced from ₹5,000/- to ₹25,000/- from 2006 to encourage talented young scientists.

A substantial number of the contributed papers, which are accepted on the basis of a careful screening to be done by the concerned Sectional Presidents with the help of some experts, are presented by way of posters. Further, to encourage scientists it was decided that at most two Prizes of ₹1000/- in cash along with a certificate be awarded to the Best Poster presentation in each section from 1999 Session. The value of these prizes were enhanced to ₹5,000/- from 2007. From its 101<sup>st</sup> Session in 2014 it has been converted to a separate programme. Oral presentations of selected contributed papers are also included in the programme of each section.

The Indian Science Congress Association has instituted several Awards to honour and encourage scientists in India – mainly through special endowments received from individuals and groups and also from its own funds. The concept of instituting Awards started from 1965 onwards and presently there are about more than 40 Awards/Lectures that are given by ISCA. From 2013 Asutosh Mookerjee fellowship has been started for senior scientists. At present there are Ten regular fellows.

# THE HUNDREDTH THREE SESSION OF INDIAN SCIENCE CONGRESS

#### INAUGURAL SESSION

The 103<sup>rd</sup> Indian Science Congress was inaugurated in the morning of January 3, 2016 at University of Mysore by Shri Narendra Modi, Hon'ble Prime Minister of India, in the presence of Shri Rudabhai Vajubhai Vala, Hon'ble Governor, Karnataka State; Dr. Harsh Vardhan, Union Minister of Science & Technology & Earth Sciences, Shri Y.S. Chowdhary, Union Minister of State (Science & Technology & Earth Sciences), Government of India; Prof. K.S. Rangappa, Hon'ble Vice Chancellor, Mysore University, Shri Siddaramaiah, Hon'ble Chief Minister, Karnataka, Prof. CNR Rao, Bharat Ratna and Dr. Ashok Kumar Saxena, General President, The Indian Science Congress Association.

Dr. Ashok Kumar Saxena, General President, Indian Science Congress Association welcomed the dignitaries and delivered his Presidential Address, on the focal theme "Science and Technology for Indigenous Development in India". Then Dr. Harsh Vardhan, Hon'ble Union Minister of Science & Technology and Earth Sciences, Government of India gave his speech. Shri Siddaramaiah, Hon'ble Chief Minister, Karnataka State delivered his address.

The Hon'ble Prime Minister of India, Shri Narendra Modi released the 103<sup>rd</sup> ISC Plenary Proceedings and presented ISCA awards to scientists (including 2014-2015, Vikram Sarabhai Memorial Award to Dr. M.Y.S. Prasad, Sriharikota. He also felicitated and gave mementoes to Nobel Laureates Prof. John B. Gurdon, Prof. David J. Gross, Prof. Dan Shechtman, Israel, Prof. Serge Haroche, Prof. Arthur B. McDonald, and the winner of Field Medal Prof. Manjul Bhargava. He also presented special prize for scientific work done on addressing disabilities. He then delivered his inaugural address.

Prof. K.S. Rangappa, Vice Chancellor, University of Mysore gave Vote of Thanks.

The inaugural session was attended by a large number of foreign scientists, distinguished scientists, academicians, Vice Chancellors of various Universities, Members of Parliament, senior functionaries from the State government, representatives from industry, students and scholars.

#### **CHILDREN SCIENCE CONGRESS**

The Inauguration was held at the Amphitheater, University of Mysore on 4<sup>th</sup> January 2016. After the invocation by the students of Fine Arts College, University of Mysore, Prof. Arun Kumar, General Secretary (Scientific Activities), ISCA welcomed the gathering. The Children Science Congress was formally inaugurated by lighting of the lamp by Nobel Laureate Prof. John Gurdon, Dr. Ashok Kumar Saxena, General President and other dignitaries on the dais. Vice Chancellor Prof. K S Rangappa, University of Mysore, delivered keynote address. On this occasion, He released 'Billion Beats' the Pulse of India (Vol.1, Jan 2016) published by the Dr. A. P. J. Abdul Kalam International Foundation (Hq Rameshwaram) featuring the science stories and the dreams of the youth of India. The abstract book containing the selected project reports of the children scientists participating in the children science congress was also released on this occasion.

Dr. Achytha Samantha, Founder, KIIT and KISS, Bhubaneswar, spoke on the occasion and emphasized the significant contribution of the country in the field of science from times going back to the Harappa and Mohenjadaro civilization. He also lauded that in Mathematics, the ancient India had given to the world the great numbers zero, pi and negative numbers and thus provided a strong foundation to the scientific edifice of all nations.

Dr Ashok Kumar Saxena, General President, ISCA, remembered the late president Dr A P J Kalam in his speech and said that he himself a scientist was dearest to the whole children community. The great man always intended that the children should get inspired by science and should develop a liking for science. He added that the ISCA is therefore not only trying to light the lamp of science in every young mind but also striving to realize the dream of Dr A P J Kalam to make India a corruption-free nation.

Dr. Amit Krishna De, Executive Secretary, ISCA conducted the Declaration of Infosys ISCA Travel Awards which are given annually upto 12<sup>th</sup> standard students at the ISCA award session. Dr Ujjwala T. Tirkey, Coordinator, National Children Science and Technology Communication, DST, spoke on the occasion. The programme concluded with the Vote of Thanks by Dr N.B. Basu, General Secretary, ISCA.

All in all, the children science congress was a very successful event with 58 entries under NCSTC from 30 states participating in this national mega event. Besides, there were 14 NCERT entries from 10 states, 4 entries from Kendriya Vidyalaya and 2 entries from Jawahara Navodaya Vidyalaya.

The valedictory marking the end of the event was held at Senate Bhavan Auditorium, University of Mysore on 6<sup>th</sup> January 2016 at 2.30 pm. The dignitaries for the valedictory were, Prof K S Rangappa, honorable Vice Chancellor of University of Mysore, Dr. Ashok K. Saxena, General President, ISCA, Prof. Arun Kumar, General Secretary, ISCA and Dr. Ujjwala Tirkey, Scientist F, DST. Prof. K. S. Mallesh, Convener, RKVS subcommittee proposed the Vote of Thanks.

#### WOMEN'S SCIENCE CONGRESS

The 5<sup>th</sup> Women's Science Congress was organized with the theme "Science & Technology for Indigenous Development of Women in India".

Honorable Union HRD Minister Smt. Smriti Irani inaugurated the Women's Science Congress on 4<sup>th</sup> January 2016 and enumerated the contributions made by the leading past and present women scientists. In the keynote address Dr. Soumya Swaminathan, Secretary DHR, DG- ICMR, New Delhi, touched upon the role played by women in the areas of education, research, extension activities, management and policy making bodies. Dr. Ashok Kumar Saxena, General President was present with other dignitaries.

The technical sessions were held on 5<sup>th</sup> and 6<sup>th</sup> January. Five plenary lectures were delivered by-Dr.Prema Ramachandran, Director, Nutrition Foundation of India, New Delhi, Dr.Kaiser Jamil, Head -Genetics Department, Hyderabad, Dr.Tessy Thomas, Project Director, DRDO, Hyderabad and Prof.Rajalakshmi Sriram, UGC-Emeritus Professor, MS University, Baroda. Eminent scientists from premier R&D institutes/Universities delivered lectures. Scientists from DST, New Delhi presented initiatives undertaken by Department of Science & Technology in promoting gender equality and empowering women to adopt Science & Technology.

During the event, women scientists discussed their scientific achievements on the following issues:-

- a) Improving health of the community particularly at the rural level
- b) Small scale entrepreneurship activities
- c) Research on new biomarkers for the diagnosis and prognosis of diseases such as Chickungunya, Filaria, Leishmeniasis etc.
- d) Gender discrimination and gender bias aspects

Opportunities for women to overcome the trajectories and contribute to Science & Technology were also covered. It is about time that women get support and recognition to pursue higher education and an environment for nurturing promoting women scientists in India.

Ms. Vasanthi Hariprakash, Former NDTV correspondent was the event anchor for the women's science congress. The women's science congress was sponsored by Department of Science & Technology, SEED division, Government of India.

The two day technical sessions were attended by more than 150 delegates including faculty, research scholars and students from various Universities/Institutions across the country. The event organization and quality of technical sessions was rated as excellent by the participants.

#### SCIENCE COMMUNICATORS' MEET

The 9<sup>th</sup> Science Communicators' Meet was inaugurated on 5<sup>th</sup> January 2016 by Prof Dan Shechtman, Nobel Laureate, Israel Institute of Technology, Haifa, Israel, in presence of Dr. Prabhat Ranjan, Department of Science and Technology, New Delhi, Prof. Rangappa, Vice Chancellor of Mysore University, Dr. Ashok Kumar Saxena, General President of ISCA, and Prof. Arun Kumar, General Secretary (Scientific Activities), ISCA.

Defence Research Development Organization (DRDO), New Delhi, Director General (Life Sciences) Dr. Manas K Mandal delivered a talk on 'Opportunities and Challenges of Science Communication in India' and Professor in Forestry and Environmental Sciences K N Ganeshaiah delivered a talk on 'Role of Scientists in Extracting and Communicating Science from Traditional Beliefs and Practices'. On 6<sup>th</sup> January 2016, former Vice Chancellor of Manipal University B M Hedge spoke on 'Science, Business and the Reality' and Scientist at Head Science Communication Through Multimedia, New Delhi, Gauhar Raza delivered a lecture on 'Scientific Temper a Necessity for Indigenous Development'. In the afternoon session, Vigyan Prasar, New Delhi, Director R Gopichandran spoke on 'Is Science Popularisation in India Oversimplified?: Provide Strategically Important Support to Missions for Better Engagement', former VC of University of Mysore S N Hegde addressed on 'Science and Technology for Enhancing the Quality of Life' and Vinod Kumar of University of Delhi threw light on 'Communicating Basic Life Science Research to Stakeholders: A need for the Paradigm Shift'. Former VC J Shahshidhar Prasad, University of Mysore and R K Sharma of DRDO and Prof Raja Sabh, Tumkur University and Prof Mewa Singh chaired the sessions.

Prof S N Hedge, Former VC, University of Mysore delivered an address at the valedictory function. Dr. Gopichandran, Director, Vigyan Prasar, University Registrar Prof C Basavaraju and the Science Communicator's Meet convener Prof Ravishankar Rai were present. Vote of Thanks was presented by Dr Arun Kumar Pandey, Assistant Executive Secretary, ISCA.

## SCIENCE EXHIBITION: PRIDE OF INDIA EXPO 103 RD ISC

The Pride of India (PoI) Expo, was inaugurated by Dr. Harsh Vardhan, Hon'ble Union Minister of Science and Technology and Earth Sciences in the presence of Dr. Ashok K. Saxena, General President, Indian Science Congress Association and other dignitaries. Special Pavilions at PoI Expo were "Hall of Pride" (HoP), dedicated to the life and works of Former President Dr. APJ Abdul Kalam - *The Missile Man* and "Edu Vision".

A one day symposium "Genesis" with theme "Realizing the Make In India Mission through Indigenous Development - Role of MSME" was organized. Vigyan Jyot (VJ) – *Flame of Knowledge* was flagged off ceremoniously, mounted on a float on 01 January 2016 from Bengaluru and received at the University of Mysore in a glittering function. The VJ was relit at the site of PoI Expo by Dr. Harsh Vardhan and other dignitaries. During the valedictory function, the VJ Torch was handed over to Prof D. Narayana Rao, General President Elect 104th ISC by Dr. Ashok K. Saxena, General President ISCA.

Spread over an area of approx. 20,000 sqm, the PoI Expo received tremendous response with the participation of over 150 organizations. The exhibition was visited by over 5 lakhs visitors.

#### VALEDICTORY FUNCTION

The 103<sup>rd</sup> Session of the Indian Science Congress concluded on January 7,2016. Welcome address was delivered by Prof. K.S. Rangappa, Vice-Chancellor, University of Mysore followed by Report by Dr. Ashok Kumar Saxena, General President, ISCA. On the occasion, the General President (Elect) Dr. D Narayana Rao announced that the 104<sup>th</sup> Indian Science Congress would be held at SRM University, Chennai from January 3 to 7, 2017.

Shri T.B. Jayachandra, Pro-Chancellor, Hon'ble Minister for Higher Education, Law and Parliamentary Affairs, Government of Karnataka delivered his address. On this occasion the Young Scientist Awards and Best Poster Awards were also presented.

Valedictory address was delivered by Shri H.D. Deve Gowda, Hon'ble Former Prime Minister and Member of Parliament and Presidential address by His Excellency Shri Vajubhai Rudabhai Vala, Governor and Chancellor, Karnataka.

Prof. C. Basavaraju, Registrar, University of Mysore presented the formal Vote of Thanks.

## TECHNICAL PROGRAMMES

	PUBLIC AND PLENARY PROGRAMME SCHEDULE		
Sl. No.	Special Session	Name of Chair Person/ Speakers	
1.	Special Session I: Panel discussion with Nobel Laureates – Science and Technology: Present and Future	Chair: BharathaRathnaProf. C.N.R. Rao, Bengaluru Co-Chair 1. Prof. K. S. Rangappa, Vice-Chancellor, University of Mysore, Mysuru 2. Dr. Ashok Kumar Saxena, General President, ISCA, Kolkata  Speakers: 1. Prof. Arthur B. McDonald, USA 2. Prof. Dan Schetman, Isreal 3. Sir Prof. John Gordan, UK 4. Prof. Serge Haroche, France 5. Prof. David J Gross, USA 6. Prof. ManjulBhargava, Fields Medallist, USA	
2.	Special Session II: Value of Science for Society and Public	Chair: Prof. Ashutosh Sharma, Secretary, DST, Government of India, New Delhi Co-Chair: Prof. K. S. Rangappa, Vice-Chancellor, University of Mysore, Mysuru Prof. C.N.R. Rao, Bengaluru Prof. Arthur B. McDonald, Nobel Laureate, USA Dr. K. Kasturirangan, Bengaluru Prof. Dan Shechtman, Nobel Laureate, Israel	
3.	Special Session III: STI Policy	Chair: Dr. M. K. Bhan, Former DBT Secretary, New Delhi.  Speakers:  1. Prof. R. C. Sobti, Vice-Chancellor, - Babasaheb Bhimrao Ambedkar University, Lucknow  2. Dr.Baldev Raj, Director, National Institute of Advanced Studies, Bengaluru  3. Prof. K. B. Akhilesh, Indian Institute of Science, Bengaluru  4. Prof. AmbujSagar, Indian Institute of Technology, New Delhi  5. Prof. R. Tewari, Punjab University, Chandigarh  6. Dr. Neeraj Sharma, Advisor & Head, Department of Science & Technology, New Delhi	

Sl. No.	Title	Name of the Chair Person/ Speakers
4.	Session of Nanoscience	Chair: Prof. A. K. Sood, Bangalore Speakers: 1-Prof. G. U. Kulkarni, Director, Bangalore 2- Dr. Ashok Ganguly, Mohali
5.	Space Science, Technology and Applications	Chair: Dr. Kirankumar,ISRO, Bangalore Co-Chair: Prof. D. N. Rao, Chennai Speakers: 1.S. K. Shivakumar 2.V. Koteswararao 3.Vinay K. Dadhwal 4. S. Somanath 5.M. Annadurai
6.	Government's view Points on Science and Technology	Speakers: Secretaries of DST,DBT,DSIR/CSIR, MOES. MOEF.MNRE,DEITY, ICAR,ICMR, DRDO, DOS, DAE, Dept. of Pharmaceuticals, S&T Wing of Niti Aayog (Dr. V.K. Saraswat, Sr. Adviser and Joint Adviser)
7.	Recent Advances Towards Cellular Basis for Clinical Disorder	Chair: Prof. S. S. Parmar, Speakers:  1-Professor Andrew J. Greenshaw, Canada 2- Professor Jonathan D. Geiger, USA 3- Professor Anil Kumar, USA 4- Professor S. Jamal Mustafa, USA 5- Professor Madhavan Nair, USA 6- Professor Othman Ghribi, USA 7- Professor Joyce Ellen Ohm, USA 8- P.K. Seth, Lucknow
8.	Sustainability and Future Generation Wireless Networks	Chair: Navarati Saxena, South Korea Co-Chair: Abhishek Roy, South Korea Speakers: 1-Byeungwoojeon, South Korea 2-Prof. Jung Hyun Jun, IIT Ropar 3-Prof. Snehanshusaha, Bangalore 4- Vaskar Ray Chaudhary, IIT Roorkee 5- Hye Young Kim, South Korea 6-Ashish Srivastava, USA

Sl. No.	Title	Name of the Chair Person/ Speakers
9.	Session on Diabetes	Chair: Prof. D. Shantaram, Chennai Speakers: 1-Dr. V.Seshiah, Chennai 2-Dr. V. Mohan, Chennai 3- Dr. Prasanna Kumar, Bangalore 4- Dr. S.R. Aravind, Bengaluru
10.	Evolution: The Frontiers	Chair: Prof. H.A. Ranganath, Bangalore Speakers: 1-Prof. Raghavendragadagkar, Bangalore 2-Prof. Rama Shankar Singh, Canada 3-Prof. Radhey S. Gupta, Canada
11.	Novel Mechanisms Underlying Allergic Airway Inflammation and Bronchial Asthma	Chair: Devendra K. Agrawal-USA Co-Chair: Prof. H.P.Tiwari, Allahabad Speakers: 1-Dr. Rajkumar, New Delhi 2-Dr. P.A.Mahesh, Mysore 3- Dr. A.Sanjiv Sur, USA
12.	Discovery & Development of Novel Drugs Make in India: Challenges and Avenues	Chair: Prof. S Rajarajan, Sonipat Co-Chair: Prof. S. B. Mahato, Kolkata Speakers: 1-Dr. V.K. Subburaj, IAS, New Delhi 2-Dr. Simon Craft, London 3-Tom Blundell, Cambridge 4-Alan P. Kozikowski, USA 5-Dr. G.S .Samathanam, Sonipat
13.	Bigdata Biotechnology: Challenges and Opportunities for India	Chair: Prof. Madan Mohan, Delhi Speakers: 1-Dr. Vinay Panda, Bangalore 2-Dr. A.K. Mishra, New Delhi 3-Dr. Dinesh Gupta, New Delhi 4-Dr. M. Michael Gromiha, Chennai
14.	Atomic Energy	Chair: Dr. R. K. Sinha, Mumbai Speakers: 1-Dr. S.F.D'souza, Mumbai 2-Dr. K.B.Sainis, Mumbai 3-Dr. P.K.Tewari, Mumbai 4-Dr. S.Banerjee

Sl. No.	Title	Name of the Chair Person/ Speakers
15.	Biodiversity Conservation: Curent Status and Road Map for the Future	Chair: Prof. R. Ramamurthi, Tirupati Speakers: 1-Dr. M.S. Nagar, New Delhi 2-Dr. R.S.Rana,New Delhi 3-Dr.Giridhar A. Kilhal, Bhopal 4-Dr. S. Subramoniyan, - New Delhi
16.	Molecular Targets and Cancer Therapeutics	Chair: Prof. Sir Tom Blundell, Cambridge Speakers: 1- Prof. Peter E Lobie, Singapore 2-Prof. Peter J. Houghton, USA 3-Prof. Alan Fersht, Cambridge 4-Prof. Mary- Ann Bjornsti, USA 5-Prof. Shin-Ichiro Nishimura, Japan
17.	Safe Water and Sanitation	Chair: Prof. K. J. Nath, Kolkata Co-Chair: Dr.N. B. Basu, Kolkata Speakers: 1-Dr.Bindeswar Pathak, New Delhi 2-Dr.Sunita Narayan, New Delhi 3- Dr.Pradeep P, Chennai 4-Dr.V.S.Chari,India
18.	A frontier in Science and Human Benefit	Chair: Prof. B. P. Chatterjee, Kolkata Co-Chair: Prof. Abhijeet Banerjee, Kolkata Speakers: 1-Dr. Hafiz Ahmed, USA 2-Prof. Jan Johansson, Sweden 3-Prof. G. V. Maksimov, Russia 4-Prof. S. Mukhopadayay, kolkata 5-Prof. Kasturi Datta, New Delhi 6-Asim K. Dattaroy, Norway
19.	Recent Advances in Male Reproduction	Chair: Prof. P. P. Mathur, Bhubaneshwar Co-Chair: Manu Saxena, USA Speakers: 1-Prof. Manuela Simoni, Italy 2-Prof. C.V. Rao, USA 3-Dr. Vassilios Papadopoulos. Canada 4-Dr. Dianne Creasy, USA 5-Dr. Martine Culty, Montreal

Sl. No.	Title	Name of the Chair Person/ Speakers
20.	Preparing the Bioscience Workforce for Emerging Technologies	Chair: Prof Sulatha Dwarakanath, USA Speakers: 1-Dr. Russ H Read, USA 2-Dr. Linnea Fletcher, USA 3- Sr. Sonia Wallman, USA 4-Dr. Elaine Johnson, USA
21.	Novel Translational Targets in Cancer and other Diseases	Chair: Prof. Shrikantanant, USA Co-Chair: V.L. Saxena, Kanpur Speakers: 1-Prof. George Weiner, USA 2- Prof. Roy Jensen, Kansas, USA 3- Prof. Victoria 1. Seewaldt, USA 4- Prof. Vinata B. Lokeswar, USA
22.	Biodiversity Database Integration for the Benefit of Human Kind	Chair: Prof. Sudarshan Kumar, Lucknow Co-Chair: Prof S.P. Singh, Kurukshetra Speakers: 1-Dr. RC Agarwal, New Delhi 2-Dr. G.P.S Raghava, Chandigarh. 3-Dr. Anil Rai, New Delhi 4-Dr.Munazza Yousra, Pakistan
23.	Genetic Dissection of Complex Diseases	Chair: Prof. H.S. Sharat Chandra, Bangalore Speakers: 1-Prof. R.N.K. Bamezai, Delhi. 2-Prof. Aravinda Chakravarti, USA 3-Dr. Sathees C Raghavan, Bangalore
24.	Insect Biology	Chair: Prof. L.S. Shashidhara, Pune Speakers: 1-Prof. Volker Hartenstein, USA 2- Prof. D. Channegowda, USA 3-Prof. L.S. Shashidhara, Pune
25.	Prevention and Therapeutic Approaches in Cancer and Other Diseases	Chair: Prof. Animeshdhar, USA Co-Chair: Dr. Manoj Chakraborti, Kolkata Speakers: 1-Dr. Chendildamodaran, USA 2-Dr. Prajna Dhar, USA 3-Dr. Balkrishna Lokeshwar, USA

Sl. No.	Title	Name of the Chair Person/ Speakers
26.	Biogas Production, Power Generation and Purification of Vehicullar Applications	Chair: Prof. Virendra K. Vijay, Delhi Speakers: 1-Dr. Varsha Joshi, Delhi 2- Dr. Hoysall N Chanakya, Bangalore 3-Dr. Deepak Sharma, Udaipur 4-Dr. Deben C Baruah, Tezpur
27.	Recent Advances in Medical and New Biology	Chair: Dr. R. Ravi Kumar, USA Speakers: 1-Dr. R.Lalitha, USA 2-Dr. Prasad Dhulipala, USA 3-Dr. Rohinidhulipala, USA 4-Dr. Krishna Dronamraju, USA 5-Dr. Arunaloke Chakravorti, Chandigarh
28.	Panel Discussion on Skill Development in Engineering Manufacture for Make in India Initiatives	Chair: Prof. N.K. Aatre Co-Chair: Prof. L. S. Satya Murthy Speakers: 1-Col. H.S. Shankar, Bangalore 2- Dr. R.M. Vasagam ,Chennai 3-Dr. H. Maheshappa, Belgaum 4-Dr. G. Raj Narayan, Bangalore
29.	Diseases and Drug Development	Chair: Prof. Tej Pal Singh Speakers: 1-M.R.S.Rao 2-Tapas K. Kundu 3-Prof. Tej Pal Singh 4-Manju Nathakini
30.	Nano Materials and Biotechnology	Chair: K. N. Thimmaiah Speakers: 1-K.J.Rao, Bangalore 2-K.Byppa, Mangalore 3-V.S.Chauhan, New Delhi
31.	Public –Private Partnership for the Swachh Bharat Mission Initiative	Chair: Prof. Indira Chakravarty, Kolkata Speakers: 1-Mrs. Santhasheela Nair 2-Mr. Nitishkapoor 3-Mr. Sanjiv Mehta 4-Mr. Sirajchaudhry 5-Dr. Saraswati Prasad

#### **ACTIVITIES IN SECTIONS**

Deliberations in the 14 sections commenced with the addresses of Sectional Presidents (Annexure-I) followed by Platinum Jubilee Lectures (Annexure-II) in each section. Symposia on special topics (Annexure-III) and a large number of Invited/Special Lectures were organised by the Sectional Presidents which formed an integral part of the technical programme of the 103<sup>rd</sup> Science Congress.

#### ISCA Young Scientists' Programme

Presentation of papers under ISCA Young Scientists' Programme in the sections were arranged on  $4^{th}$  January, 2016. This year ten young scientists received awards under this programme in recognition of their contributions in respective areas of research. ISCA Young Scientist Awards (Certificate and Cash Award of  $\mp$  25,000/-) were presented on  $7^{th}$  January 2016 during valedictory programme of  $103^{rd}$  Science Congress. Names of those young scientists and titles of their papers are given in Annexure-IV.

#### ISCA Best Poster Award Programme

To encourage Scientists, the ISCA has instituted Best Poster Awards in each Sections. These Awards carry a sum of ₹ 5,000/- besides a Certificate of Merit. This year 27 numbers of Best Poster Awards were presented on 7<sup>th</sup> January 2016 during the valedictory function of 103<sup>rd</sup> Indian Science Congress. Names of those Awardees and titles of their papers are given in Annexure-V.

#### ISCA ENDOWMENT AWARDS/ LECTURES

Name of the Award	Awardee
Professor Hira Lal Chakravarty Award	<b>Dr. Priyanka Agnihotri</b> Lucknow
Pran Vohra Award	<b>Dr. Sharmistha Pal</b> Chandigarh
Prof. Archana Sharma Memorial Award	<b>Prof. Maitrayee Dasgupta</b> Kolkata
Dr. V. Puri Memorial Award	<b>Prof. R.S. Tripathi</b> Lucknow
Dr. B.C. Deb Memorial Award for Soil/ Physical Chemistry	<b>Dr. Pramod Jha</b> Bhopal
Dr. B.C. Deb Memorial Award for Popularisation of Science	<b>Mr. Tarun Kumar Jain</b> Jaipur

Name of the Award	Awardee
Professor K.P. Rode Memorial Lecture	<b>Dr. H.B. Srivastava</b> Varanasi
Prof. G.K. Manna Memorial Award	<b>Dr. H.P. Puttaraju</b> Bangalore
Professor R.C. Saha Memorial Lecture	<b>Prof. D.S. Rawat</b> Delhi
Prof. Sushil Kr. Mukherjee Commemoration Lecture	<b>Dr. Saroj Kumar Sanyal</b> Kolkata
Prof. S.S. Katiyar Endowment Lecture	<b>Prof. Ranjana Aggarwal</b> Kurukshetra
Prof. W.D. West Memorial Lecture	<b>Dr. Ajai</b> Ahmedabad



# DR. ASHOK KUMAR SAXENA GENERAL PRESIDENT OF ISCA 103<sup>RD</sup> INDIAN SCIENCE CONGRESS MYSURU

Dr. Ashok K Saxena obtained his Masters degree in Zoology from Meerut University, Meerut in 1967 and Ph.D degree from Kanpur University. Dr. Saxena first joined as a Lecturer in the Deptt. of Zoology, DAV College Kanpur, U.P. in 1967 and became Reader in 1986 and served as a Principal, from 2005 to 2010. Dr. Saxena also served as a Convener of the Board of Studies in Zoology of CSJM, University, Kanpur. He retired as a Dean Faculty of Science, CSJM, University, Kanpur in June, 2010.

Dr. Saxena is the Emeritus Fellow of U.G.C., New Delhi (2011-2013) in the Deptt. of Zoology, D.A.V.College, Kanpur. At present Dr. Saxena is the Fellow of Sir Asutosh Mookerjee of ISCA (2013-2016) and Advisor KIIT Univ Bhubaneshwar.

Dr. Saxena has 45 years of Research experience and under his research guidance 27 students have been awarded Ph.D. degrees. He has published more than 69 Research papers in National and International Journals. Dr. Saxena has more than 21 publications in the form of Books, Symposia Proceedings. He is Convener of the Editorial Board of "Trends In Life Sciences" an International Journal, Member Editorial Board of "Life Science Advances" an International Journal and Referee of ICAR Krishi Bhavan, New Delhi. He is also Editor in Chief of "Everyman's Science", bimonthly journal of ISCA. Dr. Saxena also completed number of major and minor research projects of UGC., CSIR., DBT, New Delhi. Dr. Saxena also completed an International Joint Research Project Sanctioned from J.S.P.S.Japan.

Dr. Saxena has received several honours /awards in recognition of his meritorious research works. Some of which are: Recipient of Gold Medal of Indian Academy of Environmental Science Haridwar, Felicitated by Zoological Society of India, Member of Advisory Board of Asian Journal of Experimental Sciences, N. M. Basu Memorial Award, for the Contribution towards innovative research at Frontiers of science with intellectual and potential Leadership, Kolkata, Lifetime Achievement Award. Member of the Research Board of Advisors American Biographical Institute, Research Fellow American Biographical Institute, Zoological Society of India Gold Medal Awarded for the Contribution to Life Sciences, International Award of Recogniton 5000 Personalities of the world for outstanding Services to the research and teaching Profession by American Biographical Institute, Lions Club International Awarded Shiksha Seva Puraskar on 20 June 1998 at Kanpur.

Dr. Saxena is also Life member of different Academies/Societies and has been associated with a number of Professional Societies including Founder General Secretary Indian Society of Life Sciences. He has been associated with ISCA from the last 35 years and was first elected as a Member of Sectional Committee of the Section of Zoology, Entomology and Fisheries of ISCA. He was also elected as a Recorder of the Section of Zoology, Entomology and Fisheries for two years i.e. 1992-1993 and 1993-1994. Later he was elected as a Council member in 2004-2005 and 2005-2006 and then elected as a member of Executive Committee of ISCA in 2006-2007. In 2007 Dr. Saxena was elected as a General Secretary (Out Station) of ISCA for the period of three years i.e. upto 2010. Dr. Saxena was again elected as an Executive Member of ISCA in 2010-2011, 2011-2012 and 2012-2013.

Dr. Saxena was invited several times to attend the meeting of American Association for Advancement of Science, USA. He was invited to deliver a talk at SKKU University, South Korea. He has travelled World wide.

## Inaugural Programme of 103<sup>rd</sup> Indian Science Congress



Shri Narendra Modi, Hon'ble Prime Minister of India delivering Inaugural speech.



Dr. Harsh Vardhan, Hon'ble Union Minister of Science & Technology and Earth Sciences delivering speech.



Dr. Ashok Kumar Saxena, General President delivering Presidential address.



Dr. Ashok Kumar Saxena, General President and Prof. K.S. Rangappa, Vice Chancellor, University of Mysore presenting Memento to Shri Narendra Modi, Hon'ble Prime Minister of India.



Dignitaries on the Dias releasing proceedings of Science Communicators Meet.



Dignitaries on the Dias releasing "Billion Beats" the Pulse of India published by Dr. A P J Abdul Kalam International Foundation during Children Science Congress.



Smt. Smriti Irani, Hon'ble Union HRD Minister, Dr. Ashok Kumar Saxena, General President and other dignitaries on the Dias during Women's Science Congress.



Dr. Harsh Vardhan, Hon'ble Union Minister of Science & Technology and Earth Sciences inaugurating the Pride of India (PoI) Expo. along with Dr. Ashok Kumar Saxena, General President.



Shri H. D. Devegowda, Former Prime Minister and Dignitaries on the Dias during Valedictory Session.

## 103<sup>RD</sup> INDIAN SCIENCE CONGRESS UNIVERSITY OF MYSORE, MYSURU, KARNATAKA 3-7 JANUARY, 2016

# RECOMMENDATIONS OF SECTIONAL COMMITTEES (AS RECEIVED FROM SECTIONAL PRESIDENTS)

#### AGRICULTURE AND FORESTRY SCIENCES

- Imbalanced and inadequate plant nutrient application is a major reason for low crop productivity, low farm profitability and low nutrient use efficiency in Indian farms. Precision nutrient management based on the 4R Nutrient Stewardship principles is required for optimizing nutrient use in farm fields.
- Precision nutrient decision supporttools such as Nutrient Expert, Green Seeker, GIS-based fertility maps, STCR etc. that help wide-scale dissemination of improved nutrient management tools must be up-scaled.
- Water scarcity is one of the biggest challenges that may compromise our food security. Participatory development of water conservation structures to store and use rainwater and excess canal water, and precision water management strategies that supply water near crop root zone will improve water use efficiency. In this regard, the quality of irrigation water (such as waste water, contaminated surface and groundwater, untreated sewage, industrial effluents, etc.) needs to be considered to address the bio-safety issues.
- Adoption of conservation agriculture and recycling of organic residues is essentialfor improving the soil organic carbon stock and soil health in general. Development of a national strategy on 'Waste to Wealth' for providing potential and practical solutions to reduce residue burning and proper handling and recycling of rural and urban wastes is required. The latter may be linked with the National Skill Development Mission for recycling of organic residues back to fields for improving soil health.
- Implementation of Land Resource Inventory at 1:10000 scale is necessary to catch the microspecificities of agricultural production systems and propose the appropriate Land Use Planning, with special emphasis on land degradation and the corrective measures.
- Climate change will strongly affect our agricultural production systems. Research for development of heat, drought and other biotic and abiotic stress tolerant cultivars through public-private partnership, and easy access of quality seed for farmers remain critical for adaptation and mitigation of climate change impacts.
- The need for data acquisition from the ICAR and the Central Government- funded long-term multi-location research projects and their proper storage was strongly recommended. The access to data for analysis by multiple agencies should be ensured for agricultural policy guidance.

- Strong emphasis is needed on extension to harness the large-scale impact of improved technologies in farmers' fields. Synergy of technologies and target groups, use of modern audiovisual aids, as well as ICT-based decision support tools like Nutrient Expert in conjunction with the Soil Health Card Program is desirable.
- Popularization of Non-Tree Forest Products is necessary to help ensure livelihood security and women empowerment in tribal areas.
- The wastelands along canal bunds and coastal belts can be put to productive use by raising high oil yielding trees for promoting biofuel production, thereby reducing environmental footprint of commercial fuel use.

#### ANIMAL, VETERINARY AND FISHERY SCIENCES

- 1. Animal behavioral studies pertaining to climate changes and natural disaster need to be taken as an area for potential research.
- 2. Bioresources are the wonderful gift of nature to the mankind whose sustainability can be effectively linked to rural livelihood and economic development, so science education should aim at attracting students for proper management and sustainable utilization of bioresources.
- 3. The assemblage of species with we share the planet represents a vast untapped genetic library, with undiscovered pharmaceutical and beneficial substances. So programme needed to be initiated for the exploration of other less known potential varieties of life forms with a view to ensure rural livelihood, food, health and financial security.
- 4. Promotion of Public awareness on biodiversity conservation role of individuals for minimizing ecological footprint and maintaining health and hygiene in the vicinity should be made.
- 5. Documentation of traditional technical knowledge (TTK) and indigenous technology, its revival and strengthening for sustainable development in the area of bioresources and adaptation to climate change should be made.
- 6. Public participation in decision-making should be ensured and integration of environmental, economic and social sustainability with food, health and livelihood security of the people.
- 7. Basic biology should be made integral part of undergraduate and post-graduate studies in biotechnology, microbiology, bio-informatics and modern disciplines.
- 8. Programme needs to be initiated for exploration of other less known varieties of life forms with a view to ensure livelihood and food security.
- 9. Application of molecular tools for wildlife conservation, especially of endangered species may be given greater importance.

- 10. Multivoltine race of silkworm (*Bombyx mori*) should be tested under different agro-climatic zones of India for proper evaluation of their improvement efficiency.
- 11. Bio-economic modeling of different ponds and reservoir management with view to increase fish production should be carried out.
- 12. Various disease problems (in aquaculture and animals' husbandry etc.) and their management can be worked out in details.
- 13. Public-private partnership (PPP) should be encouraged to solve the environmental problems and conservation and proper exploitation of all such life forms, which ensure food, health and livelihood.
- 14. With a view to check population growth, amalgamation of both indigenous and recent innovative research of male reproduction should be encouraged.

## ANTHROPOLOGICAL & BEHAVIORAL SCIENCES (INCLUDING ARCHAEOLOGY, PSYCHOLOGY, EDUCATION AND MILITARY SCIENCES)

- 1. Social harmony is a prerequisite to both national development and integration. Social harmony is disturbed by three Ps-Proverty. Prejedices and Politicization. Therefore, efforts should be made for eradicating poverty, deescalating inter-group prejudices and discouraging politicization which lead to vote bank politics.
- 2. Indigenous knowledge of the country should be enriched particularly in the areas of health sector, agriculture, art, crafts and handicraft, indigenous skill development, sanitation and cleanliness and economic activities.
- 3. Indigenous development of armaments on the lines of indigenous subsonic missile (Nirbhaya in Oct 2014) should be further encouraged. DRDO had developed many more armaments and missiles and greater need has arisen to develop new armaments in this direction.
- 4. Policy makers should implement 'Ayush' vehemently, particularly in the areas on 'Ayurveda' and 'Yoga'. Benefits of Yoga have been proved scientifically. There has been acceptance of Yoga but greater efforts are needed to prevent many physical and mental aliments. Promotion of mental health may be facilitated by Yoga.
- 5. Stress and depression are increasing in our country. This is resulting in the increase of suicide rates of farmers, students and other section of people. It is recommended that proactive policies be implemented by promoting mental health. Suicide has three phases Ideation. Attempt and Commitment by identifying the indicators through test like 'Suicide Ideation Scale'. The number of attempters and committers may be reduced.
- 6. Counseling should become a regular routine in our school system.

7. Development of men be based on the lines given by the then behaviorist (Vedic Philosophers) from individual to universe Yatpinde-tat-Brahmande.

#### **CHEMICAL SCIENCES**

- 1. Emphasis should be on the development of technology for cheap diagnostic kits for diagnosis of diseases at an early stage.
- 2. Research should be encouraged for the development of chemical and bio-sensors for various bio markers.
- 3. Research should be conducted in the field of nanomaterials to be used in display, imaging and lighting applications.
- 4. Green synthesis and electro organic synthesis should be adapted for the rapid and efficient synthesis of various heterocycles and heterocyclic scaffolds.
- 5. Graphene quantum dot conducting polymer for opto electronic and photovoltaic applications are the need of the hour.
- 6. Application of electrochemical and photocatalytic technology should be expanded for the mineralisation of various environmental organic pollutants.
- 7. Research on Photogalvanic cells for sustainable approach to harvest solar power should be in the priority area of research.

#### **EARTH SCIENCES**

- 1. Recent geoscientific research and development shall be incorporated and amalgamated with the mineral and mining based industries for the National development.
- 2. With the increase in demand of Energy and Water there is an urgent need to formulate strategies and modalities through geoscientific investigations for their proper management and utilization.
- 3. To enhance mineral and energy resources ongoing studies in Bay of Bengal, Arabian Sea and Indian oceans be rigorously taken up. Regions such as Antarctica and Artic be continued with reference to better understanding of Climate Change studies.
- 4. There is an urgent need to look into mitigation and management of Natural Hazards (frequent earthquakes, floods, cyclones and storms, tsunamis, mass movements, ground level fluctuations etc.) including Climate Change from geoscientific perspective.
- 5. Geoscientific concerns is necessary in planning of Smart Cities.

6. Geology be included as one of the optional Science subject in High and Higher secondary level School Curriculum to be taught by trained postgraduate's.

#### **ENGINEERING SCIENCES**

- Recent advances in Nano technology offer opportunities to develope next generation water treatment and supply system. There should be a coordinated effort between the government, University and research organizations to support and highlights projects on nano-technology enabeled water and wastewater treatment.
- Conventional proven technology needs to be improved and utilized in collaboration with modern techniques for cost effective solutions of drinking water supply for rural community particularly in the arsenic and fluoride affected areas.
- River rehabilaton and training structures are now days one of the most important aspects of river engineering which contains all the hydro-environmentals features such as river grade control, bank protection, water quality and aquatic habitat and these are needed to be employed for a sustainable environment. Several eco friendly hydraulic structures like W-weir, cross vane, J-Hook and log deflectors are being employed to attain this objective.
- The research on finding the potential of both cotton and coal ash as water holding materials was experimented with sandy loams in the difficult terrain of inner Mongolia and this can evaluated in Indian senerio to assess the positive effect of increase of water holding capacity. In addition the potential of coal ash, the effect of artificial geolite as particle film sparayed over plant-leafs can also be evaluated to further diversify its potential use for salinity mitigation in arid soil.

#### **ENVIRONMENTAL SCIENCES**

- 1. It is recommended to create "smart green belts" model for promoting conservation of biodiversity in a sustainable way so that this new concept will promote the growth of indigenous industries harnessing the local resources and will provide various livelihood materials such as timber, firewood, fruits, vegetables, animal foods, silk, lac, honey, electricity, fertilizer and medicine for consumption as well as for generating incomes.
- 2. It is recommended to explore, document and reclamation of wasteland and conservation of wetlands for better livelihood and for maintaining sustainable ecosystem in a cost effective and implementable manner.
- 3. It is recommended to set up an all India co-ordinated Project on assessment and mitigation of air quality (indoor and outdoor air quality) in major cities of India in terms of inorganic (NOx. SOx, SPM, etc.,) and organic (pollen and spore causing allergy) pollutants.

#### **MATERIALS SCIENCE**

1. Attention required for the Ganga river cleaning and to be encouraged by DST for research and development in the following thrust areas:

- i. Developing simple techniques for the removal of above named chemical moieties from effluents from tanneries and other industries, so that the Ganga river turns clean.
- ii. Research work for developing low-cast, eco-friendly alternate materials for substituting basic chromium sulphate for the tanning of leather without compromising the eventual quality.
- iii. Portable test kits (conventional chemical sensors and sensors based on nano materials) for detection of chromium from the industrial effluents.
- iv. Nano filters, dispersed with functionalized CNT to be developed.

#### MATHEMATICAL SCIENCES (INCLUDING STATISTICS)

- 1. Applicable mathematics should be given more stress.
- 2. Data analytics, coding theory, soft computing and machine intelligence may also be included in the mathematics section.
- 3. There should be collaboration among mathematics, engineering and other science subjects.
- 4. The above is due to the fact that mathematical modeling and simulation of physical problems save time and cost of repeated experiments to succeed the 'Make in India' slogan.
- 5. Mathematicians (pure, applied, statistics) need to think a bit for applications with their research outcomes as per the need.
- 6. Technical (educational and research) institutes should keep the mathematics subject and related facilities in the forefront because this may be the only subject without which no other subjects may grow for breakthrough results.
- 7. Provide quality mathematics education for all.
- 8. Provide opportunities to all teachers, for continued professional growth in their mathematical knowledge.
- 9. Mathematicians should recognize the need for improving mathematics teaching at all levels.
- 10. A coherent professional development program for mathematics should be developed.
- 11. The teaching and learning of mathematics should keep pace with the needs of modern societies.

#### MEDICAL SCIENCES (INCLUDING PHYSIOLOGY)

- a) There must be improvement of health, hygiene, Nutrition and life style process in our country. Therefore topics are to be elaborately discussed and taken care of by the section also.
- b) Proper hygiene is to be maintained echoing the prime Minister's slogan ie. "Swachh Bharat" meaning cleanliness and proper sanitation of our country.

- c) Nutrition: India having one hundred thirty core populations, out of which more than 60% are suffering from under nutrition both from calorie point of view as well as formulation of diet including the micro nutrition. They are not having the proper kinds of foods. These eventually results in poor immune response to different infection diseases. Rather on the other hand invites diseases. Further, poor nutrition or over nutrition creates different types of non communicable diseases. This burden our society with i) Cardiovascular accident ii) cerebral vascular accident iii) Cancer iv) Diabetes. These should be properly addressed.
- d) Population of our environment are leading to may human diseases of COPD, different cardiovascular diseases, hypertension, cancer, diabetes, infertility etc.

Not only the modern medical sciences, we should also give equal stress of the study on our indigenous medical practices, including Ayurvedic, Homeopathy, tradition medicinal practices and medicine. In connection to this, our folk medicines which also come to the center of these points are also need to be addressed. Now a days, as for example, in rural area about 50,000 people are dying per year due to the poisons snake bite so it has been addressed by WHO that this is the most neglected diseases to Tropics. So this needs to be taken care of.

# NEW BIOLOGY (INCLUDING BIOCHEMISTRY, BIOPHYSICS & MOLECULAR BIOLOGY & BIOTECHNOLOGY)

- 1. Area of Microbiome received much attention as it has many applications in the years to come. It was felt that this area should be encouraged.
- 2. Cell Biology and signalling mechanisms were an area of interest to many.
- 3. Presentations on diabetes were well appreciated starting from insights into molecular aspects.
- 4. Area of proteins and enzymes in relation to snake venom was an area of interest and needs to be encouraged.
- 5. Cell communication including glycosaminoglycans was an area of interest.

#### **PLANT SCIENCES**

- 1. Since plant-microbe beneath the earth's surface have been found be confer beneficial attributes, more research be carried out on plant-microbial root system in relation to crop protection from plant diseases and enhancement of productivity.
- 2. In order to develop and standardize microbial inoculants preparations and mass production for their application in farmer's field; Indigenous microbial strains may be screened and promoted at different agro-climatic conditions of specific region of country.

- 3. Indigenous knowledge available be considered for blending with modern scientific knowledge, so as to apply its practical application in increasing farmer's economy in terms of average yield of the crop plants.
- 4. Efforts may be made at the Govt. level to devise ways for skill development in this area through educational and implementing agencies.
- 5. Efforts should be made to make use of plant resource based technology for the benefits of rural communities, primarily in agriculture and handicraft industry.
- 6. There is need to impart skill based teaching-learning in the area of Plant Sciences through revision of curricula including environmental concern through introduction of 4-year Bachelors programme.
- 7. Research in the area of scientific validation of traditional knowledge related to medicinal plants and formulations should be encouraged and indigenous development and standardization of herbal remedies be enhanced.
- 8. The depletion of biodiversity caused by anthropogenic stresses and luxuriant growth of invasive alien plants needs to be significantly reduced in order to maintain the ecosystem stability.

# OTHER ACTIVITIES ISCA CHAPTERS

The Association started organizing popular science lectures in different centers in India from 1962-63. The scheme envisages constructive work for the popularization and advancement of science throughout the year. Till 1985-86 these lectures were delivered at seventeen centres spread over the country. However, this was restructured with the formation of Regional Chapters from 1986-1987.

One of the major objectives of the ISCA is to inculcate the Scientific temper among the people and to encourage young scientists to grow up steadily in this direction involving them in the programmes relevant to fundamental, experimental and operational activities. With these objectives in view, ISCA started Chapters from 1986-87 in different places in India. At present twenty seven ISCA Chapters are at Allahabad, Amravati, Aurangabad, Banasthali, Bangalore, Baroda, Bhopal, Bhubaneswar, Cochin, Chennai, Coimbatore, Delhi, Haridwar, Hyderabad, Imphal, Jaipur, Jammu, Kanpur, Kolkata, Kurukshetra, Nagpur, Patiala, Patna, Pondicherry, Sagar, Shillong, Tirupati.

## Highlights of ISCA Chapter Activities (2015-2016)

#### ISCA BARODA CHAPTER

National Workshop on "Hyperspectral Remote Sensing of Natural Resources" was organized jointly with Botany department, The Maharaja Sayajirao University of Baroda. Celebrated Birth anniversary of Dr A. P. J. Abdul Kalam , two days state level workshop on GIS and Space technology with ISTAR, Vallabh Vidyanagar. Quiz competition was organized. National Seminar on Impact of Climate Change on Biodiversity was organized and International menstrual day was also celebrated.

#### ISCA BANGALORE CHAPTER

Organized "National Conference on "Science and Technology for Indigenous Development in India" in association with M.S Ramaiah College of Arts, Science and Commerce. Five speakers, one keynote address, four plenary lectures, 48 research papers were presented in 8 sessions and 42 posters, chaired by eminent personalities of life sciences. Organized one day National Seminar on Biomolecular Research in Health and Medicine and one day work shop on Science and Society. Organized the 84<sup>th</sup> Birth Anniversary celebration of late Dr. A.P.J. Abdul Kalam . Prof.B.Themme Gowda, vice Chancellor, Bangalore University, highlighted the contributions of Dr.A.P.J.Abdul Kalam as a fountain of inspiration to young people.

#### ISCA BHUBANESWAR CHAPTER

Birthday of Late A.P.J. Abdul Kalam was celebrated. An inter school quiz competition was organized and a popular lecture was delivered by Prof. V. Chandrasekhar, Director NISER. More than 200 students and faculty members attended the programme. A three days national seminar on the Theme Science & Technology for Indeginious Development in India was organized where more than 400 participants attended. Altogether 26 invited talks were delivered by eminent scientists and faculty members from all over India. More than 250 young researchers had presented their works in

the poster session of the seminar. Posters were evaluated and awarded. National science Day 2016 was celebrated at KIIT University Bhubaneswar. More than 200 participants attended the programme. A popular lecture was delivered by Prof. Ajit Kumar Mohanty, Director Saha Institute of Nuclear Physics, Kolkata.

#### ISCA CHENNAI CHAPTER

The Chennai Chapter activities throw the glimpses of indigenous events through enabling, facilitating, and the societal construction. In association with the official bearers of life and annual members, the Chennai Chapter have had piloted four 1-day seminars/workshops, and one 3-days National Conference on "Societal Scientific Actions of Three Es Such As Energy, Environment and Empowerment of the Under-Privileged". Those are as follows; Prof. Günther Andersson's Talk – Oct., 29, 2015, selection of two Science Communicators, Oct. 30, 2015, National Conference on Science & Technology –Indigenous development in India, NCST-IDI 2015 – Nov. 26 – 28, 2015, National Science Day celebrations - Feb. 28, 2016, Science for Indigenous India (SII) – Mar., 28, 2016.

#### ISCA COCHIN CHAPTER

Organized seminar on Science and Technology for the Indigenous Development in India, composed of 16 invited talks in 6 sessions: International year of Light and light based technologies: Indian contribution; Man and environment; Domestic marketing of fish – emerging technologies; Usefulness of plant genetic resources for sustainable development in India with special reference to Hevea crop; Biofloc – an innovative technology for aquaculture development; Development of fishing technology; Properties and applications of fish protein hydrolysates – A Review; Sea food allergy – A Review; Marine nutraceuticals and human well being; Sediment Budgeting for sustainable Management of beach placer deposits; Exploring the indigenous Biodiversity of Kerala for potential plant probiotic microorganisms; Towards Managerial excellence; Make in India – Opportunities & Threats – A management Perspective from Infrastructure sector; Indigenous Technical knowledge: A boon to Traditional Fisheries Scenario; Indigenous technology for sustainable management of natural resources through fish sanctuaries in Vembanad Lake; Indigenous developments in Harvests & Post-harvest sector in Fisheries – CIFTs contribution.

#### ISCA COIMBATORE CHAPTER

Lecture on 'Biomedical application of Nanofirbils', One day seminar on "Scientific Approaches in Judicious Management of Natural Resource", lecture on 'Aeroponics – Soilless Cultivation', Commemoration of the birthday celebrations of Dr. A.P.J. Abdul Kalam, tree saplings planted, Exhibition on the focal theme 'Indian Traditional Knowledge' for school and college students. Enrichment programme for school students to know the recent trends in biological sciences was conducted. One day seminar on Traditional Knowledge, a Boon for Nation Building, 'Application of Science and Technology for National Development' conducted in three different rural schools of Coimbatore district. In the adopted village Dhanalakshmipuram, toilets were constructed and handed over to downtrodden people. For the segregation of non-biodegradable wastes, separate bins were provided.

#### ISCA DELHI CHAPTER

ISCA Pran Vohra Award to Dr. Swarup Parida organised jointly with NRCPB, Pusa Institute, Delhi. Two lectures organized at the Media Centre, Gurgaon by Dr. Sunita Gupta, an Acupuncturist and Dr. Rita Banik spoke on how cancers are formed and how they can be treated. Health and hygiene

awaeness talks were organized for under priveleged children in two Ghaziabad-schools - Gyan Kiran Foundation and St. Francis School together with Dr. Sachin Bhargava and Dr. Kanti Jha from IMA Ghaziabad/ Sparsh NGO carried out a health check-up for children and their parents. A screening-cum awareness camp in collaboration with RACE (Reign in Cancer) NGO, ROKO (mobile screening equipment) was organized in Kamal Hospital, Anti-smoking awareness painting competition among 15,000 govt. school children partnered with IMA Ghaziabad, 3 best paintings from each school was awarded.

#### ISCA HARIDWAR CHAPTER

Science Communicator Selection organised. Adopted the village Mundiaki (Near Mangalor, Roorkee) and constructed a Toilet and Bathroom that were inaugurated by Prof. A. K. Saxena, General President,ISCA. Gouri Ganguly Memorial Award Lecture for 2014-15 organised. Cash prizes given at Innovator's Exhibition held at Bahadarabad rural area. 05 Popular science Lectures were organised in village schools. National Conference on Science & Technology for Indigenous Development in India organized at Faculty of Engg. & Technology. Cash Awards and certificates were given for oral and poster presentations. Birth Day of Dr. A.P.J. Abdul Kalam: celebrated. National Science Day Celebrated, at Jawahar Navodaya Vidyalaya, Roshnabad, Haridwar, Speakers Prof. R Jain, Gwalior and Prof. S Kumar, VC, Haridwar. Organised Science quiz competition.

#### ISCA KANPUR CHAPTER

Survey and Adoption of village Mandhana for Free check-up camp and health awareness lecture under Swatch Bharat Abhiyan and distribution of clothes, lectures by Dr. Mahender Singh, National Bureau of Fish Genetic Resources, Dr. Arushi Chaudhary, IIT, Dr. Punit Kackkar, GVK Biosciences, Hyderabad. Dr Abdul Kalam celebration organised at premises of Dayanand Girls P.G College, Kanpur on 15th October 2015 Prof. Arvind Saxena— Ex-Director, DMSRDE, inaugurated the function and a Documentary was displayed depicting the utmost valuable contribution of Dr. Kalam. followed by Quiz Competition for the students. Selection of Science Communicators, Lecture on Health and Hygiene at Junior High School, Mandhana by Dr. Anshu Mishra, organized two day Seminar in the auditorium of D.G. College, Kanpur on "Science & Technology for Indigenous Development in India". Former Vice Chancellor S.V. University and Former General President ISCA Prof. Ramamurti, Presided the session. Chief Guest Mrs. Kumkum Swarup inaugurated the Seminar by lighting the lamp. Guest of Honor Mr. Gauravendra Swarup, General President of ISCA Dr. Ashok K. Saxena, General Secretary (Scientific Activities) Prof Arun Kumar and other Executive Committee/Council members were present. The programme was well telecasted by electronic and print media.

#### ISCA KOLKATA CHAPTER

Two days scientific seminar organised at R C B Saraswat Mandir, Nabadwip, Nadia. General President, Prof A K Saxena, inagurated the function along with Mr. Pundarikakshya Saha, MOS,PHE, Govt. of West Bengal. Doctor's day observed with seminar at NICED, Kolkata. Organised one day seminar in two rural schools (Shyampur High School, Howrah and Santipore Muslim High School, Nadia) and arranged Science Communicator's meet at Science College. Celebration of Birth Anniversary of Hon'ble Dr APJ Abdul Kalam at Victoria Institution (College), Kolkata. Besides scientific seminars, ISCA Imphal and Kolkata Chapters jointly organized an Interaction Meeting at Gangtok to promote the cause of Sciences in NE India.

#### ISCA KURUKSHETRA CHAPTER

Organised Science Exhibition and program on Science Awareness among the school students of rural area, "Walk for Kalam" and an activity named "A Day with Scientist", and Hygiene awareness among the villagers. National Conference on role of Science & Technology towards make in India- RSTTMI-16, Emerging Trends and Technology in Sciences, Chemical Sciences Emerging Scenario & Global Challenges was organized. Under the Prime Minister Swachh Bharat Abhiyan aegis two toilets one for gents and other for ladies has been constructed in Dayalpur village.

#### ISCA NAGPUR CHAPTER

Celebration of World Earth Day, National Nutrition week, several workshops including "Clean Energy and Clean Storage technology", hands on training to make solar lamps, Solid waste Management, Vermin compost, Apiculture, Protein and Aromatic Oil Extraction, and Biofertilizer production technology, cultivation of medicinal plants and entrepreneurship potential. Documentation of forest resources, medicinal plants of Tadoba National Park was carried out and People's biodiversity Register of Navegaon Khairi was prepared. Seminar Competition held for Research Scholar students. Science and Environment fair competition, rally and science exhibition was organized for High School students. National Conference on "Innovations In Agribiosciences", National Science Day was observed with Exhibition, Scientific Posters and Models presentation, and Intercollegiate debate competition on "Present science education system in India can withstand global challenges".

#### ISCA TIRUPATI CHAPTER

Six lectures by eminent scientists on Biopolymer pollution, Climate change, Watershed, Green Energy, Agave plantations as carbon sinks and Water Harvesting were arranged in degree colleges. Notable National and International Days-Earth Day, Environment Day, Science Day and Food Day were celebrated. With the participation of Horticulture University, Agriculture University and Chittor district NERDCAP a sustainable centric exhibition was organized.

# CELEBRATION OF HINDI WEEK CEREMONY IN THE INDIAN SCIENCE CONGRESS ASSOCIATION

### **OBSERVATION OF HINDI WEEK CELEBRATION**

The inauguration of the Hindi Week of The Indian Science Congress Association started on 09<sup>th</sup> September, 2015 with Noting competition. This programme was presided by Dr. Amit Krishna De, Executive Secretary. On this programme Dr. Arun Kumar Pandey, Assistant Executive Secretary was also present. In Hindi Week Ceremony various competitions were organised and everyone participated in this. On 14<sup>th</sup> September, 2015 Hindi Week Ceremony has it's valedictory session with Quiz Competition. Shri Kailash Nath Yadav, Member Secretary, TOLIC conducted Hindi Workshop and judged Dictation Competition. On the prize distribution ceremony of this programme Dr. Vijay Laxmi Saxena, Past General Secretary (Scientific Activities) presented prizes to the participants.

### **PUBLICATIONS**

The bi-monthly journal Everyman's Science (Vol.L Nos.1-6) was brought out. Other publications brought out were: ISCA Directory: 2015-2016, Annual Report: 2014-2015, Synopsis of the Presentations of ISCA Young Scientist Awardees for  $103^{rd}$  ISC, Abstracts of Best Poster Award Programme for  $103^{rd}$  ISC and proceedings (containing Presidential Address, abstracts of Platinum Jubilee Lecture, Awards Lecture, papers presented and invited lectures of different sections).

# OTHER ITEMS ISCA MEETINGS

Following meetings of different bodies were held during the year 2015-2016.

Name of the Body	Meetings held on
Executive Committee	May 05, 2015, October 03, 2015, January 02, 2016, January 2, 2016 (adjourned to January 7, 2016),
Council	May 06, 2015, October 04, 2015 and January 02, 2016 (adjourned to January 07, 2016)
Finance & Establishment Committee	May 05, 2015 and October 03, 2015 January 02, 2016
Advisory Committee	May 05, 2015, October 03, 2015

Besides above, two meetings of the General President with Sectional Presidents of 103<sup>rd</sup> Indian Science Congress were held on May 06, 2015 and October 04, 2015. Also, meeting of Conveners of ISCA Chapters were held on January 02, 2016.

# ISCA REPRESENTATION IN OTHER ORGANIZATIONS DURING 2015-2016

### Indian National Science Academy, New Delhi:

**Prof. S. S. Katiyar,** General President,(2001-2002) ISCA and Former Vice-Chancellor, Chhatrapati Shahu Ji Maharaj University, Kanpur & Vice-Chancellor, C.A. University of Agriculture and Technology, Kanpur & Former Chairman, U.P. State Council for Higher Education, Lucknow, U.P.

### Post Graduate Institute of Medical Education and Research, Chandigarh:

**Prof. B.P.Chatterjee,** former General Secretary, ISCA, Emeritus Professor, West Bengal University of Technology, Sector-I, BF-142, Salt Lake, Kolkata.

# JIPMER, Puducherry, (Jawaharlal Institute of Post Graduate Medical Education and Research):

**Dr. Ashok Kumar Saxena**, General President (2015-2016) and Former General Secretary, ISCA, Former Dean, Faculty of Science, C.S.J.M. University, Kanpur; U.P.

### National Academy of Engineering, Gurgaon:

**Dr. N.B. Basu**, General Secretary (Membership Affairs) ISCA, Principal Chief Engineer (C) & C.M.E. (P & D), The Kolkata Municipal Corporation, Kolkata.

#### All India Institute of Medical Sciences (AIIMS), New Delhi:

**Dr.(Mrs.) Vijay Laxmi Saxena,** Former General Secretary, ISCA, Head of the Department of Zoology, Dayanand Girls (P.G.) College, Kanpur.

### All India Institute of Medical Sciences, Bhopal:

**Dr. (Mrs.) Vijay Laxmi Saxena,** Former General Secretary, ISCA, Head of the Department of Zoology, Dayanand Girls (P.G.) College, Kanpur.

### All India Institute of Medical Sciences, Bhubaneswar:

**Dr. Ashok Kumar Saxena**, General President (2015-2016) and Former General Secretary, ISCA, Former Dean, Faculty of Science, C.S.J.M. University, Kanpur, U.P.

### All India Institute of Medical Sciences, Jodpur:

**Prof. Dr. Ranbir Chander Sobti,** General President, (2013-14), ISCA, Vice-Chancellor, Babasaheb Bhimrao Ambedkar University, Lucknow - 226 025.

#### All India Institute of Medical Sciences, Patna:

**Prof. S.S. Katiyar,**General President,(2001-2002) ISCA and Former Vice-Chancellor, Chhatrapati Shahu Ji Maharaj University, Kanpur & Vice-Chancellor, C.A. University of Agriculture and Technology, Kanpur & Former Chairman, U.P. State Council for Higher Education, Lucknow, U.P.

### All India Institute of Medical Sciences, Raipur:

Prof. H.P. Tiwari, Former General Secretary, ISCA, Allahabad.

#### All India Institute of Medical Sciences, Rishikesh:

**Dr. Manoj Kumar Chakrabarti,** Former General Secretary, ISCA, ICMR Emeritus Medical Scientist, Division of Pathophysiology, National Institute of Cholera and Enteric Diseases (ICMR), Kolkata.

#### **MEMBERSHIP**

The trend in Membership of different categories during the last three years can be observed from the following table:

	101 <sup>st</sup> Session (2013-2014)	102 <sup>nd</sup> Session (2014-2015)	103 <sup>rd</sup> Session (2015-2016)
Life Member	24,050	26,782	29,059
<b>Annual Member</b>	8,253	6,642	4,920
<b>Sessional Member</b>	2,111	2,127	4,195
<b>Student Member</b>	755	2,227	3,702
Individual Donor	18	20	23
<b>Institutional Donor</b>	31	31	33
<b>Institutional Member</b>	8	12	8
Total	35,226	37,841	41,940

# **ORGANIZATIONAL SET-UP\***The composition of GB/GC/FC:

The composition of **General Body** of ISCA consists of all the Members (with voting right) and Honorary Members of the Association.

The **Council** consists of (i) Members of Executive Committee, (ii) all such Members or HonoraryMembers of the Association who have held office as General President, General Secretary or Treasurer, (iii) Sectional Presidents, (iv) seven members of the Association elected by the General Body, (v) one member to be nominated by The Kolkata Municipal Corporation, (vi) Co-opted members of the Finance and Establishment Committee, (vii) Editor-in-Chief of Everyman's Science, and (viii) a nominee of Indian National Science Academy (INSA) Council who is a member of ISCA.

The **Executive Committee** consists of the General President, the Immediate Past General President, the General President-Elect, the two General Secretaries, the Treasurer, ten members elected by the General Body, and Secretary or his nominee, Department of Science and Technology, Government of India and two local Secretaries of the ensuing session.

ISCA has six **Statutory Committees** *viz* : (i) Advisory Committee (ii) Finance Committee (iii)Establishment Committee (iv) Publication Committee (v) Endowment Committee and (vi) Standing Committee on Science and Society.

#### Staff Welfare measures:

No staff welfare matters was taken during the year under report.

### Implementation of reservation policy:

The Association is following the policy of the Government of India in the matter of recruitment of its staff members.

<sup>\*</sup> In accordance with the suggestion given by DST in its letter No.AI/AR/004/2007 dated 31-03-2007 the above materials on organizational set-up are also furnished.

### Implementation of the Official Languages Policy:

Steps to implement the provisions of Official Languages Policy as adopted by the Government of India from time to time, have been taken by the Association by way of printing of letterheads, title headings in different registers, name plates of different sections, membership forms, annual report, etc.in bi-lingual forms. A Junior Hindi Translator is looking after the above work.

#### Right to Information Act:

As per Right to Information Act a Public Information Officer has been identified from the existing Officers and her name has been displayed in the ISCA Website. Any enquiry received regarding R.T.I.is taken care of by the concerned Officer.

#### **Public Grievances Redress Mechanism:**

Executive Secretary has been nominated as Public Grievance Officer to take necessary action on complaints received from the members of the Association. There is also a Vigilance Officer whose name has been displayed in the ISCA Website.

#### Citizen's Charter:

### Reservation Policy under the Corporate Social Responsibility:

The Association is following the Reservation Policy of the Government of India in respect of SC/ST/OBC in the matter of recruitment of its staff members and a roster is maintained in this regard.



ISCA Amravati Chapter



**ISCA Bangalore Chapter** 



ISCA Baroda Chapter



**ISCA Bhubaneswar Chapter** 



**ISCA Cochin Chapter** 



ISCA Haridwar Chapter



ISCA Chennai Chapter



**ISCA Coimbatore Chapter** 



ISCA Hyderabad Chapter



ISCA Kolkata Chapter



ISCA Nagpur Chapter



ISCA Kanpur Chapter



ISCA Kurukshetra Chapter



**ISCA Pondicherry Chapter** 



ISCA Patiala Chapter



**ISCA Srinagar Chapter** 



**ISCA Patna Chapter** 



**ISCA Tirupati Chapter** 



Hindi Programme ISCA (Headquarters)

### **ACKNOWLEDGEMENTS**

The Executive Committee of the Indian Science Congress Association is grateful to the Department of Science & Technology, Government of India, for the generous grant-in-aid to the Association. The Committee would also like to record its deep appreciation of the continued help and cooperation received from officers and staff of DST.

The Executive Committee records its great appreciation of the personal interest for hosting and organizing the 103<sup>rd</sup> Indian Science Congress by University of Mysore at Mysuru. Sincere thanks are also due to Prof. K. S. Rangappa, Vice Chancellor and Dr. N.B. Ramachandra and Dr. D.D. Somashekara, Local Secretaries and their associates, for their untiring efforts to make the 103<sup>rd</sup> Indian Science Congress a grand success.

The Executive Committee also expresses its indebtedness to the Council and the members of the General Body as also Members of different Committees and Sub-Committees, Sectional Presidents, Sectional Recorders, Local Sectional Secretaries, Chapter Conveners and members of the Sectional Committees for their guidance and advice. In referring to the success achieved at the  $103^{rd}$  Session, it is a pleasure for the Committee to record its gratefulness to the General President, Dr. Ashok Kumar Saxena for all his efforts to make the  $103^{rd}$  Indian Science Congress a great success and memorable one.

Last but not least, no record of acknowledgment could be complete without expressing the deep appreciation of the work done by the staff of the Association throughout the year.

## TITLE OF ADDRESSES OF SECTIONAL PRESIDENTS OF $103^{\text{RD}}$ ISC SESSION

Sl No.	Section	President	Title
1.	Agriculture and Forestry Sciences	<b>Dr. Kaushik Majumdar</b> Haryana	Sustainable Food Security and Plant Nutrition.
2.	Animal, Veterinary and Fishery Sciences	<b>Prof. Prabhu Nath Pandey</b> Ranchi	Aquatic Ecology and benthic communities are at peril and pose serious impediments for indigenous development in India
3.	Anthropological and Behavioural Sciences (including Archaeology, Psychology, Education and Military Sciences)		Social Harmony and National Development
4.	Chemical Sciences	<b>Dr. Rajeev Jain</b> Gwalior	Electroanalysis from Tiny Drop of Mercury to Micro Fluidic paper-Based Analytical Devices- An Overview
5.	Earth System Sciences	<b>Dr. Tejender Nath Jowhar</b> Dehradun	Diffusion Modeling Studies in Minerals and its Geological Applications
6.	Engineering Sciences	<b>Prof. Asis Mazumdar</b> Kolkata	Water Crisis Mitigation in India: Remediation through Sustainable Indigenous and Emerging Technology
7.	Environmental Sciences	<b>Dr.Gangadhar Mishra</b> Ranchi	Forest Biodiversity Preservation vis-a-vis sustainable development. Smart Green Belt: A Pilot Project
8.	Information and Communication Science & Technology (including Computer Sciences)	Prof. Karbhari Vishwanath Kale Aurangabad	Information and Communication Technology for Society

## ANNEXURE - I

## TITLE OF ADDRESSES OF SECTIONAL PRESIDENTS OF 103<sup>RD</sup> ISC SESSION

Sl No.	Section	President	Title
9.	Materials Science	<b>Dr. Arvind Kumar Dixit</b> Kanpur	Multifunctional Inorganic Polymer (Polyphosphazenes) for Various Applications
10.	Mathematical Sciences (including Statistics)	<b>Dr. Snehashis Chakraverty</b> Rourkela	Connectionist Learning Based Numerical Solution of Differential Equations
11.	Medical Sciences (including Physiology)	<b>Prof. (Dr.) Chittaranjan</b> <b>Maity</b> Kolkata	Snake and Snake Venom Research: A Personal Account
12.	New Biology (including Biochemistry, Biophysics & Molecular Biology and Biotechnology)	Mysuru	Changes in Glycoconjugates during Diabetic Nephropathy and the Role of Foods
13.	Physical Sciences	<b>Prof. Jagdish Rai</b> Bareilly	Role of Physics in Technological Development.
14.	Plant Sciences	Prof. Dinesh Kumar Maheshwari Haridwar	Application of Plant Microbes in Enhancing Agricultural Productivity: Success Stories and Bottlenecks

# PLATINUM JUBILEE LECTURES OF 103<sup>RD</sup> ISC SESSION

Sl No.	Section	Speaker	Title
1.	Agriculture and Forestry Sciences	<b>Dr. Subhra Chakraborty</b> N.I.P.G.R.,New Delhi	Quest for understanding Biomolecular Network: A way forward increasing nutrient contents and immunity in Plants.
2.	Animal, Veterinary and Fishery Sciences	<b>Prof. P.C. Joshi</b> Gurukul Kangri University, Haridwar	Entomo fauna and its role in sustaining a forest ecosystem: A case study in western Himalaya, Uttarakhand, India
3.	Anthropological and Behavioural Sciences (including Archaeology, Psychology, Education and Military Sciences)	<b>Prof. MVR Raju</b> Andhra University, Visakhapatnam	Promotion of mental health in India: A plea for policy makers.
4.	Chemical Sciences	<b>Dr. Sandeep Verma</b> I.I.T., Kanpur	PJL: Interfering with insulin a myloidogenesis: A Combined experimental and computational assessment.
5.	Earth System Sciences	<b>Dr. Brijesh K. Bansal</b> Ministry of Earth Science, New Delhi	Dynamic Indian Pate
6.	Engineering Sciences	Nil	
7.	Environmental Sciences	<b>Dr. Gurunath Ramanathan</b> I.I.T., Kanpur	3 - nitrotoluene biomineralization by Diaphorobacter species
8.	Information and Communication Science & Technology (including Computer Sciences)	Nil	
9.	Materials Science	Dr. Jarugu Narasimha Moorthy I.I.T., Kanpur	Molecular Control of Materials Properties: Crystalline Porous Materials and Amorphous Organic Light Emitting Diodes (OLEDs)
10.	Mathematical Sciences (including Statistics)	<b>Dr Somesh Kumar</b> I.I.T., Kharagpur	On the problem of estimating parameters of directional distributions

## PLATINUM JUBILEE LECTURES OF 103<sup>RD</sup> ISC SESSION

Sl No.	Section	Speaker	Title
11.	Medical Sciences (including Physiology)	<b>Dr. Shanta Dutta</b> NICED, Kolkata	Prevention of enteric fever: current scenario
12.	New Biology (including Biochemistry, Biophysics & Molecular Biology and Biotechnology)	CSIR, CFTRI Mysore	Effect of Diabetes on remodeling of erythrocyte a n d b r a i n glycosaminoglycans.
13.	Physical Sciences	<b>Dr. Ajay K. Singh</b> BARC, Mumbai	Coherent Nonlinear Spectroscopy: Femtosecond Dynamics to Quantum Control
14.	Plant Sciences	<b>Dr. Appa Rao Podile</b> University of Hyderabad, Hyderabad	Carbohydrate ligands and their cognat receptors in plant microbe interactions.

# TITLES OF SYMPOSIA ON SPECIALIZED TOPICS ORGANISED BY THE SECTIONS OF 103<sup>RD</sup> ISC SESSION

Sl No.	Section	Topic(s)
1.	Agriculture and Forestry Sciences	<ol> <li>Drivers of Sustainable Agriculture and Food Security in India</li> <li>Communication strategies for transfer of technologies among small and marginal farmers for ensuring food security in India</li> </ol>
2.	Animal, Veterinary and Fishery Sciences	<ol> <li>Innovations in Animal Sciences for food, health and livelihood security.</li> <li>Recent Advances in Male Reproduction</li> </ol>
3.	Anthropological and Behavioural Sciences (including Archaeology, Psychology, Education and Military Sciences)	<ol> <li>Behavioural Sciences and Indigenous Development in India</li> <li>Culture and Indigenous Development in India</li> </ol>
4.	Chemical Sciences	<ol> <li>Chemistry for Indigenous Development in India.</li> <li>Nanotechnology for the Welfare of Mankind.</li> </ol>
5.	Earth System Sciences	<ol> <li>Earth System Science for National Development Strategies and Modalities</li> </ol>
6.	Engineering Sciences	<ol> <li>Water Crisis Mitigation in India: Innovations and Challenges</li> <li>Application of Nanotechnology for Indigenous Development in India.</li> </ol>
7.	Environmental Sciences	<ol> <li>Exploration, documentation and utilization of Indian herbal medicine for better livelihood</li> <li>Assessment and mitigation of air quality in major cities of India in terms of inorganic ( NOx, SOx, CO2, SPM, etc) and organic ( pollen, spore, bioaerosol, etc.) pollutants.</li> </ol>
8.	Information and Communication Science & Technology (including Computer Sciences)	1. ICT for Society
9.	Materials Science	<ol> <li>Multifunctional Polymeric Materials for indigenous development.</li> <li>Advanced Multifunctional Polymer and related Materials.</li> </ol>

# TITLES OF SYMPOSIA ON SPECIALIZED TOPICS ORGANISED BY THE SECTIONS OF 103<sup>RD</sup> ISC SESSION

Sl No.	Section	Topic(s)
10.	Mathematical Sciences (including Statistics)	<ol> <li>Analytical and Computational Paradigms in Differential Equations</li> <li>Contemporary Trends in Number Theory and Statistics</li> </ol>
11.	Medical Sciences (including Physiology)	<ol> <li>Innovative approach of health Science research</li> <li>Integrated physiological research in 21<sup>st</sup> century</li> </ol>
12.	New Biology (including Biochemistry, Biophysics & Molecular Biology and Biotechnology)	<ol> <li>Recent trends in Biological Sciences</li> <li>Advances in Molucular Biology for Better Health and Welfare of Mankind</li> </ol>
13.	Physical Sciences	1. Role of Physics in Technological Development.
14.	Plant Sciences	<ol> <li>Plant-microbe interactions and development of indigenous technologies</li> <li>Advances in Plant Sciences- an Indian Perspective</li> </ol>

## LIST OF YOUNG SCIENTIST AWARDEES FOR THE YEAR 2015-2016

Sl No.	Section	Section	Title of the Paper(s)
1.	Agriculture and Forestry Sciences	Saurav Saha ICAR - Research Complex, Mizoram	Water Use Efficiency: A Function of Atmospheric CO <sub>2</sub> Enrichment for Chickpea (Cicer arittinum L.)
2.	Animal, Veterinary and Fishery Sciences	Bhaskar Ganguly COVAS, G.B.Pant Uni, Pantnagar	Inhibition of Infectious Bursal Disease Virus by Silver Nanoparticles Synthesize with Withania Somnifera Root Extract
3.	Anthropological and Behavioural Sciences (including Archaeology, Psychology, Education and Military Sciences)	Mr. Sujeet Pratap B.H.U, Varanasi	Task-Irrelevant Affective Valence Interacts with Vigilance Task Performance
4.	Chemical Sciences	<b>Arijit Sengupta</b> BARC, Mumbai	Understanding the Extraction Mechanism, Radiolytic Stability and Stripping Behaviour of Thorium Using CMPO pillar [5] arenes in Ionic Liquid
5.	Earth System Sciences	<b>Amiya K. Samal</b> B.H.U., Varanasi	Relative chronology, Petrology and Geochemistry of distinct Paleoproterozoic mafic dyke swarms from the eastern Dharwar craton, India: Implications for Large Igneous Provinces (LIPs) and Paleocontinental Reconstructions
6.	Engineering Sciences	E m m a n u e l Nehemiah. J CCET, Pondicherry	Error Free Transmission of Mc Cdma Signals Through Multiple Antennas
7.	Environmental Sciences	Gaurab Sircar Bose Institute, Kolkata	Biomonitoring of Environmental Allergens in Kolkata Megacity in Relation to Respiratory Allergy with Special Emphasis on Immuno-Biochemistry of a Predominant Fungal Allergen
8.	Information and Communication Science & Technology (including Computer Sciences)	No Award	

ANNEXURE - IV

## LIST OF YOUNG SCIENTIST AWARDEES FOR THE YEAR 2015-2016

Sl No.	Section	Section	Title of the Paper(s)
9.	Materials Science	<b>Gaurav Vats</b> I.I.T., Powai, Mumbai	Giant Pyroelectric Energy Harvesting and Negative Electrocaloric Effect in PZT/CFO Multilayered Nanostructures
10.	Medical Sciences (including Physiology)	No Award	
11.	Medical Sciences (including Physiology)	No Award	
12.	New Biology (including Biochemistry, Biophysics & Molecular Biology and Biotechnology)	Sonia Kapoor I.I.T.,Mumbai	Distinctive Binding site of D24851 on a-Tubulin Explains its low Neurotoxicity during Chemotherapy
13.	Physical Sciences	No Award	
14.	Plant Sciences	Maria Vera Jesus Da Costa Goa University, Goa	Toxic effect of metal oxide nanoparticles on photosynthesis and biochemical response in <i>Oryza sativa</i>

## LIST OF BEST POSTER PRESENTATION AWARDEES FOR 2015-2016

Sl No.	Section	Name of the Awardee(s)	Title of Paper (s)
1.	Agriculture and Forestry Sciences	1. Chhavi Sirohi CCS HAU, Hisar	Production potential of wheat varieties and nutrient status of soil under poplar (Populus deltoides) based Agroforestry System  Role of H2O2 and Ascorbate – Glutathione Pathway in Host Resistance to Bacterial Wilt of Eggplant  Soil Meso-arthropod Minor Group and their Ecological Functions: A case study of Kathara Coal Filed Area of Jharkhand, India  Assessment of Zinc bioaccumulation in fish Channa punctatus exposed chronically  Need of Science and Technology of Yoga for Perfection  Differential onset of Puberty and Adolescence among girls and boys of a central Indian town (Sagar)  Synthesis and Structural
		2. Avinash Prakasha University of Mysore, Mysore	Glutathione Pathway in Host Resistance to Bacterial Wilt of
2.	Animal, Veterinary and Fishery Sciences	1. Amita Hembrom S.S.M. College, Ranchi	Group and their Ecological Functions: A case study of Kathara Coal Filed Area of
		2. Manoj Kumar University of Lucknow, Lucknow	bioaccumulation in fish Channa
3.	Anthropological and Behavioural Sciences (including Archaeology, Psychology, Education	1. Paranandi Mallikarjuna SSC,Ananthapuram	
and Military Sciences)	2. Rachna Thakur Dr. H.S. Gour University, Sagar	Adolescence among girls and boys of a central Indian town	
4.	Chemical Sciences	1. Brajendra S. Kusmariya Dr. H.S. Gour, Central University, Sagar	Synthesis and Structural Investigation of Co(II) and Ni(II) complex with 2-chloro-6-{[(E)-(4-hydroxy-3-methoxyphenyl) methylidene]amino}-4 nitrophenol Schiff base ligand: Micro-texture, Thermal, Electrochemical and Theoretical Aspects
		2. Jyotrimay Maiti WBSU, Kolkata	Novel Synthesis, Molecular Docking and Spectroscopic Analysis of an Intramolecular Charge Transfer Fluorescent Dye and to Study DNA and Protein Binding Properties

## LIST OF BEST POSTER PRESENTATION AWARDEES FOR 2015-2016

Sl No.	Section	Name of the Awardee(s)	Title of Paper (s)
5.	Earth System Sciences	<b>1. Leena Kamra</b> WIHG, Dehradun	Appraisal of radon variability in seismic active Garhwal Himalaya
		2. Shraddha Rajput University of Delhi, Delhi	Identification of possible sources of major ion chemistry in the aquifers of Gurgaon & Faridabad Districts of Delhi-NCR through correlation with nitrate
6.	Engineering Sciences	1. A.K. Naithani NIRM, Karnataka	Geotechnical Investigations and Support Design of Underground Pump House Cavern – A Case Study
		2. Avni Khatkar MDU, Rohtak	Analysis of impact of speed on rtPS, ertPS and ertPS flows in WiMAX networks
7.	Environmental Sciences	1. Arun Ratn University of	Phorate induced Gonadotoxicity and Genotoxicity in fish, <i>Channa punctatus</i>
		2. Praveen Dhyani GBPIHED, Almora	Diversity of Bacillus thuringiensis isolated from different locations of Western Himalaya, India
8.	Information and Communication Science & Technology (including Computer Sciences)	1. D. Jeyamala TCE, Tamil Nadu	A Novel Vulnerability analysis framework for security threats of critical online applications using Dynamic query matching approach
9.	Materials Science	1. Swapna V.P. UOC, Kerala	Characterization and Properties of Asymmetric Polysulfone/Polyhedral oligomeric silsesquioxane Nanocomposite Membranes
		2. <b>Mritunjay K Pandey</b> IU, Kanpur	Synthesis of Hydroquinone and Resorcinol containing Phosphonitrilic based Polyphthalonitrile Resins
10.	Mathematical Sciences (including Statistics)	1. Lakshika Chutani NSIT, New Delhi	A study of Certain results on a class of entire dirichlet series in n-variables

## LIST OF BEST POSTER PRESENTATION AWARDEES FOR 2015-2016

Sl No.	Section	Name of the Awardee(s)	Title of Paper (s)
		2. A.S. Praveena University of Mysore, Mysuru	On generalized log pareto distributions
11.	Medical Sciences (including Physiology)	1. Debajyoti Bhattacharya HGC, Kolkata	Effect of High Casein Diet on Hematological Parameters of Swiss Albino Mice Exposed to Mobile Phone Radiation
		2. U.H. Shah Balwant College, Maharashtra	Leaf Extract of Aegle marmelos: A Potent Angiomodulator
12.	New Biology (including Biochemistry, Biophysics & Molecular Biology and Biotechnology)	1. Rohit Goyal School of Pharmaceutical Science, Solan	Effect of GABAergic regulation for Neuro-humoral amelioration of Dementia: Role of Valeric acid from <i>Valeriana wallichii</i>
		<b>2. Dinesh S.M.</b> NITTE University, Mangalore	Integrated whole genome sequencing and transcriptome study identifies rare mutations in atherosclerosis and thrombosis pathways in a case of severe restenosed atherothrombosis
13.	Physical Sciences	1. Sangeeta Sagar University of ucknow, Lucknow	Molecular Association of Poly Propylene Glycol Diacrylate (PPGDA) 800 with 2- Methoxyethanol (2-ME) and N-N Dimethylethanolamine (N-N DMEA)- An acoustical and <sup>1</sup> H NMR Study
		2. Nishant Kumar University of Lucknow, Lucknow	Dominant green emission from screen-printed ZnO/MgO films
14.	Plant Sciences	1. Aditya Abha Singh BHU, Varanasi	Interactive effects of elevated carbon dioxide and ozone on maize plants in relation to growth, antioxidant status, physiology and yield
		2. Beetika Kohli University of Jammu, Jammu	Causes and Consequences of meiotic abnormalities in the male sex track of <i>Allium roylei</i> at the gametophytic and isoenzymatic levels.

## LIST OF INFOSYS FOUNDATION - ISCA TRAVEL AWARDEES FOR 2015-2016

Sl. No.	Name of the Awardee
1.	Greeshma Reddy Christ Junior College, Bengaluru
2.	Nagashree N.R. P.U. College, Channaratyapatna
3.	Afrah Budnar Kunjibettu SDM PU College, Ujjire
4.	Sharman Raj. P. SDM PU College, Ujjire
5.	<b>Ashwin Kumar K.</b> VVS Golden Jubilee College, Mysore
6.	Lavanya Kurun Mehrotra Seth Anand Ram Jaipuria School, Kanpur
7.	<b>Divyansh Singh</b> Seth Anand Ram Jaipuria School, Kanpur
8.	<b>Shrunga V.E.</b> MMK College and SDM Girls PU College, Mysore
9.	Sahiba Ansari Riverain Public School, Dehradun
10.	<b>Syed Hazim</b> Sadvidya Semi-Residential PU College, Mysore

## **MEMBERS OF THE COUNCIL FOR 2015-2016**

General President		Dr. S.C. Pakrashi	Kolkata
Dr. Ashok Kumar Saxena	Kanpur	Prof. U.R. Rao	Bengaluru
Di. Ashok Kumai Saxena	Kanpui	Prof. S.K. Joshi	New Delhi
Immediate Dast Consuel Dussiden	4	Dr. P. Rama Rao	Hyderabad
Immediate Past General Presiden		Dr. (Mrs.) Manju Sharma	New Delhi
Dr. Sarjerao Bhaurao Nimse	Lucknow	Dr. R.A. Mashelkar	Pune
		Dr. R.S. Paroda	New Delhi
General President-Elect		Dr. K. Kasturirangan	Bengaluru
Prof. D. Narayana Rao	Kattankulathur	Prof. Asis Datta	New Delhi
		Prof. N.K. Ganguly	New Delhi
General Secretary (Membership A	Affairs)	Prof. Harsh Gupta	Hyderabad
Dr. Nilangshu Bhusan Basu	Kolkata	Dr. T. Ramasami	Chennai
		Dr. G. Madhavan Nair	Trivandrum
General Secretary (Scientific Activ	vities)	Prof. K.C. Pandey	Lucknow
Prof. Arun Kumar	Imphal	Prof. Geetha Bali	Bengaluru
	1	Dr. Manmohan Singh	New Delhi
Treasurer		Prof. Dr. Ranbir Chander Sobti	Lucknow
Prof. Dhyanendra Kumar	Arrah		
1101. Dily anonara Tramai	Tilluli	Past General Secretaries	
<b>Elected Members of the Executive</b>	Committee	Dr. (Miss) Shashi Prabha Arya	New Delhi
Dr. (Mrs.) Vijay Laxmi Saxena		Prof. H.P. Tiwari	Allahabad
Mr. Gauravendra Swarup	Kanpur	Prof. S.P. Mukherjee	Kolkata
1	Kanpur	Dr. (Mrs.) Yogini Pathak	Vadodara
Prof. S.S. Katiyar	Kanpur	Prof. Uma Kant	Jaipur
Prof. R. Ramamurthi	Tirupati	Prof. B. Satyanarayana	Hyderabad Kolkata
Dr. Nibedita Chakrabarti	Kolkata	Prof. B.P. Chatterjee Prof. S.P. Singh	Kurukshetra
Prof. Gangadhar	Bengaluru	Prof. Avijit Banerji	Kuluksiletia
Prof. Santosh Kumar	Bhopal	Dr. Manoj Kumar Chakrabarti	Kolkata
Prof. Ranjit Kumar Verma	Patna	Di. Manoj Kumai Chaktabarti	Koikata
Prof. C. Muthamizhchelvan	Kattankulathur	Past Treasurer	
Prof. Vinoy Kumar Shrivastava	Bhopal	Dr. S.B. Mahato	Kolkata
		DI. S.B. Manato	Kuikata
Representative of DST, Governme	ent of India	Sectional Presidents	
Dr. Praveer Asthana	New Delhi	Dr. Kaushik Majumdar	Gurgaon
		Prof. Prabhu Nath Pandey	Ranchi
Local Secretaries		Dr. N.K. Saksena	Kanpur
Dr. N.B. Ramachandra	Mysuru	Dr. Rajeev Jain	Gwalior
Dr. D.D. Somashekara	Mysuru	Dr. Tejender Nath Jowhar	Dehradun
	•	Prof. Asis Mazumdar	Kolkata
Past General Presidents		Dr. Gangadhar Mishra	Ranchi
Prof. M.S. Swaminathan	Chennai	Prof. Dr. Karbhari Vishwanath Kale	Aurangabad
Prof. A.K.Sharma	Kolkata	Dr. Arvind Kumar Dixit	Kanpur
Prof. M.G.K. Menon	New Delhi	Dr. Sneshashish Chakraverty	Rourkela
Prof. R.P.Bambah	Chandigarh	Prof. (Dr.) Chittaranjan Maity	Kolkata
Prof. C.N.R. Rao	Bengaluru	Dr. Paramahans V. Salimath	Mysuru
Prof. Yash Pal	Noida	Prof. Jagdish Rai	Bareilly
Drof D. V. Sinho	V allzata	Prof Dinech Kumar Mahechwari	Haridwar

Kolkata

Gurgaon

New Delhi

Prof. Yash Pal Prof. D.K. Sinha

Dr. S.Z. Qasim

Prof. P.N. Srivastava

Prof. Jagdish Rai Prof. Dinesh Kumar Maheshwari

Haridwar

## **MEMBERS OF THE COUNCIL FOR 2015-2016**

**Elected Members of the Council** 

Dr. Anoop Kr. Jain
Mrs. Kumkum Swarup
Prof. K.S. Rangappa
Dr. S. Ramakrishna
Dr. Achyuta Samanta
Dr. M.G. Ragunathan
Prof. Sunil Prakash Trivedi

Mumbai Kanpur Mysuru Bengaluru Bhubaneswar Chennai Lucknow Representative of The Kolkata Municipal Corporation

Sri Anindya Karforma Kolkata

**Editor-in-Chief of Everyman's Science** 

Dr. Ashok Kumar Saxena Kanpur

Representative of Indian National Science Academy

(INSA) Council

Prof. (Dr.) J.P.Mittal Navi Mumbai

## **MEMBERS OF THE COUNCIL FOR 2016-2017**

<b>General President</b>		Dr. (Mrs.) Manju Sharma	New Delhi
Prof. D.Narayana Rao	Kattankulathur	Dr. R.A. Mashelkar	Pune
11011 2 11 (414) 4114 1140	12000001110010011001	Dr. R.S. Paroda	New Delhi
Immediate Past General President		Prof. S.S. Katiyar	Kanpur
Dr. Ashok Kumar Saxena	Vonnur	Dr. K. Kasturirangan	Bengaluru
DI.ASIIOK Kuiliai Saxelia	Kanpur	<u>C</u>	
		Prof. Asis Datta	New Delhi
General President Elect	71.1	Prof. N.K. Ganguly	New Delhi
Dr.Achyuta Samanta	Bhubaneswar	Prof. Harsh Gupta	Hyderabad
		Dr. T. Ramasami	Chennai
General Secretary (Membership Affairs	s)	Dr. G. Madhavan Nair	Trivandrum
Prof. Gangadhar	Bengaluru	Prof. K.C. Pandey	Lucknow
		Prof. Geetha Bali	Bengaluru
General Secretary (Scientific Activities)		Dr. Manmohan Singh	New Delhi
Prof. Premendu P.Mathur	Bhubaneswar	Prof. Dr. Ranbir Chander Sobti	Lucknow
1 101. I Temendu 1. Maniai	Diluodileswai	Dr. Sarjerao Bhaurao Nimse	Lucknow
Тиологичем		Di. Saijeiao Bilaulao Millise	Luckilow
Treasurer	D /	B + C + 1C + +	
Prof. Ranjit Kumar Verma	Patna	Past General Secretaries	- 4.
		Dr. (Miss) Shashi Prabha Arya	New Delhi
<b>Elected Members of the Executive Com</b>	mittee	Prof. H.P. Tiwari	Allahabad
Prof.(Dr.) Kanhaiya Lal Shrivastava	Jodhpur	Prof. S.P. Mukherjee	Kolkata
Prof. Pramod K. Verma	Bhopal	Dr. (Mrs.) Yogini Pathak	Vadodara
Mrs. Kumkum Swarup	Kanpur	Prof. Uma Kant	Jaipur
Dr. Nibedita Chakrabarti	Kolkata	Prof. B. Satyanarayana	Hyderabad
Prof.K.S.Rangappa	Mysore	Prof. B.P. Chatterjee	Kolkata
Dr.S.Ramakrishna	Bengaluru	Prof. S.P. Singh	Kurukshetra
	Hyderabad		Kulukshena Kolkata
Prof.B.Satyanarayana	•	Prof. Avijit Banerji	
Prof.Naresh Padha	Jammu	Dr. Manoj Kumar Chakrabarti	Kolkata
Prof. C. Muthamizhchelvan	Kattankulathur	Dr. (Mrs.) Vijay Laxmi Saxena	Kanpur
Prof.R.Ramamurthi	Tirupati	Dr. Nilangshu Bhusan Basu	Kolkata
		Prof.Arun Kumar	Imphal
Representative of DST, Government of	India		
Dr. Praveer Asthana	New Delhi	Past Treasurer	
		Dr. S.B. Mahato	Kolkata
Local Secretaries		Prof. Dhyanendra Kumar	Arrah
Prof.N.Sethuraman	Kattankulathur	1101. Dilyanonara 12amai	1111111
Prof.C.Muthamizhchelvan	Kattankulathur	Sectional Presidents	
1 101.C.Ividinaimznenervan	Kanankulaniui	Dr. Ashok K.Patra	Dhomal
D4 C1 D			Bhopal
Past General Presidents	C1 ·	Prof.B.B.Kaliwal	Davangere
Prof. M.S. Swaminathan	Chennai	Prof.Subho Roy	Kolkata
Prof. A.K.Sharma	Kolkata	Prof.Raj Nath Yadava	Sagar
Prof. M.G.K. Menon	New Delhi	Dr.Onkar Singh Chauhan	Goa
Prof. R.P.Bambah	Chandigarh	Mr.Sisir Kr.Banerjee	Kolkata
Prof. C.N.R. Rao	Bengaluru	Prof.Swati Gupta-Bhattacharya	Kolkata
Prof. Yash Pal	Noida	Mr.Devaprasanna Sinha	Kolkata
Prof. D.K. Sinha	Kolkata	Dr.Durgesh Nath Tripathi	Kanpur
Prof. P.N. Srivastava	Gurgaon	Prof. Tarun Kumar Das	Delhi
Dr. S.C. Pakrashi	Kolkata	Prof.Somnath Roy	Kolkata
Prof. U.R. Rao	Bengaluru		Kolkata
	•	Prof. Dhrubajyoti Chattopadhyay	
Prof. S.K. Joshi	New Delhi	Prof.Sugriva Nath Tiwari	Gorakhpur
Dr. P. Rama Rao	Hyderabad	Prof.Vijai Pal Singh	Bareilly

## **MEMBERS OF THE COUNCIL FOR 2016-2017**

<b>Elected Members of the Council</b>		Representative of The Kolkata Mu	nicipal Corporation
Mr.Gauravendra Swarup	Kanpur	Sri Anindya Karforma	Kolkata
Dr. Vidya Patni	Jaipur		
Prof.(Dr.) K.Muthuchelian	Madurai	Editor-in-Chief of Everyman's Sci	ence
Prof.(Dr.) S.Rajarajan	Sonepat	Dr. Ashok Kumar Saxena	Kanpur
Prof.M.Bhupathi Naidu	Tirupati		
Dr.G.James Pitchai	Chennai	Representative of Indian Nation	al Science Academy
Prof.S.V.Kasmir Raja	Chennai	(INSA) Council	
·		Prof.Kankan Bhattacharyya	Kolkata

### PERSONNEL

### STAFF AS ON MARCH 31, 2016

**Executive Secretary** 

Dr. Amit Krishna De

**Assistant Executive Secretary** 

Dr. Arun Kumar Pandey

**Section Officer III** 

Mrs. Indrani Das

Office Assistant I

Mr. Barun Halder\*

Mr. Santu Kumar Ghosh

Mrs. Swasti Roy

**Junior Hindi Translator** 

Mrs. Debasree Dutta (Saha)

Office Assistant I

Mr. Pijus Ghosh

**Office Assistant II** 

Mr. Kaushik Kumar Nandy

Mr. Sudip Kumar Bala

Mr. Dipankar Dey

Mr. Sambhu Nath Chatterjee

**Office Assistant III** 

Mr. Akshya Kumar Patra

Mr. Owen Mechabeus Lakra

Mr. Anit Pal

Mr. Krishna Bhujel

Mr. Sudhansu Chowdhury

Mr. Prabhu Dayal Singh

Mr. Subhas Das

Mr. Swarup Kumar Mondal

Mr. Gopal Nath

Mr. Dipesh Chandra Ghosh

**Staff Car Driver** 

Mr. Manojit Sankar Dasgupta

<sup>\*</sup> Superannuated on 31.01.2016

Session	Year	Place	Name	Title of the Presidential Address
1 <sup>st</sup>	1914	Calcutta	Hon.Justice Sir Asutosh Mookerjee	About Science Congress
$2^{nd}$	1915	Madras		The Importance of Knowledge of Biology to Medical, Sanitary and Scientific Men Working in the Tropics
$3^{rd}$	1916	Lucknow	Colonel Sir Syndey Burrar	The Plains of Northern India and their Relationship to the Himalayan Moutains
4 <sup>th</sup>	1917	Bangalore	Sir Alfred Gibbs Bourne	On Scientific Research
5 <sup>th</sup>	1918	Lahore	Dr.Gilbert T.Walker	On Teaching of Science
$6^{th}$	1919	Bombay	Lt.Colonel Sir Leonard Rogers	Researches on Cholera
$7^{\text{th}}$	1920	Nagpur	Acharya Prafulla Chandra Ray	Dawn of Science in Modern India
8 <sup>th</sup>	1921	Calcutta	Sir Rajendra Nath Mookerjee	On Science and Industry
$9^{th}$	1922	Madras	Mr.C.S.Middlemiss	Relativity
$10^{\text{th}}$	1923	Lucknow	Sir M. Visvesvaraya	Scientific Institutions and Scientists
11 <sup>th</sup>	1924	Bangalore	Dr.T.N.Annandale	Evolution Convergent and Divergent
12 <sup>th</sup>	1925	Banaras	Dr.M.O.Forster	On Experimental Training
13 <sup>th</sup>	1926	Bombay	Mr.Albert Howard	Agriculture and Science
14 <sup>th</sup>	1927	Lahore	Sir J.C.Bose	The Unity of Life
15 <sup>th</sup>	1928	Calcutta	Dr.J.L.Simonsen	On Chemistry of Natural Products
16 <sup>th</sup>	1929	Madras	Professor C.V.Raman	On Raman Effect
17 <sup>th</sup>	1930	Allahabad	Col.S.R.Christophers	The Science and Disease

Session	Year	Place	Name	Title of the Presidential Address
18 <sup>th</sup>	1931	Nagpur	Lt.Col.R.B.Seymour- Sewell	The Problem of Evolution - Experimental Modification of Bodily Structure
19 <sup>th</sup>	1932	Bangalore	Rai Bahadur Lal Shiv Ram Kashyap	Some Aspects of the Alpine Vegetation of the Himalaya and Tibet
$20^{\text{th}}$	1933	Patna	Sir Lewis L.Fermor	The Place of Geology in the Life of a Nation
21 <sup>st</sup>	1934	Bombay	Professor M.N.Saha	Fundamental Cosmological Problems
22 <sup>nd</sup>	1935	Calcutta	Dr.J.H.Hutton	Anthropology and India
$23^{\text{rd}}$	1936	Indore	Sir U.N.Brahmachari	The Role of Science in the Recent Progress of Medicine
24 <sup>th</sup>	1937	Hyderabad	Rao Bahadur T.S. Venkatraman	The Indian Village – its Past, Present and Future
25 <sup>th</sup>	1938	Calcutta	Sir James H.Jeans Rutherford of Nelson died prematurely)	(Lord Researches in India and in Great Britain
$26^{th}$	1939	Lahore	Professor J.C.Ghosh	On Research in Chemistry in India
27 <sup>th</sup>	1940	Madras	Professor B.Sahni	The Deccan Traps: An Episode of the Tertiary Era
$28^{\text{th}}$	1941	Banaras	Sir Ardeshir Dalal	Science and Industry
$29^{\text{th}}$	1942	Baroda	Dr.D.N.Wadia	The Making of India
$30^{\text{th}}$	1943	Calcutta	Dr.D.N.Wadia	Minerals' Share in the War
31 <sup>st</sup>	1944	Delhi	Professor S.N.Bose	The Classical Determinism and the Quantum Theory
$32^{\text{nd}}$	1945	Nagpur	Sir Shanti S.Bhatnaga	r Give Science a Chance
$33^{\text{rd}}$	1946	Bangalore	Professor M.Afzal Husain	The Food Problem of India

Session	Year	Place	Name	Title of the Presidential Address
$34^{\text{th}}$	1947	Delhi	Pandit Jawaharlal Nehru	Science in the Service of the Nation
35 <sup>th</sup>	1948	Patna	Colonel Sir Ram Nath Chopra	Rationalisation of Medicine in India
$36^{\text{th}}$	1949	Allahabad	Sir K.S.Krishnan	
$37^{\text{th}}$	1950	Poona	Professor P.C. Mahalanobis	Why Statistics
$38^{th}$	1951	Bangalore	Dr.H.J.Bhabha	The Present Concept of the Physical World
$39^{\text{th}}$	1952	Calcutta	Dr.J.N.Mukherjee	Science and Our Problems
$40^{\text{th}}$	1953	Lucknow	Dr.D.M.Bose	The Living and the Non-living
41 <sup>st</sup>	1954	Hyderabad	Dr.S.L.Hora	Give Scientists a Chance
42 <sup>nd</sup>	1955	Baroda	Professor S.K.Mitra	Science and Progress
43 <sup>rd</sup>	1956	Agra	Dr.M.S.Krishnan	Mineral Resources and Their Problems
44 <sup>th</sup>	1957	Calcutta	Dr.B.C.Roy	On Science for Human Welfare and Development of the Country
45 <sup>th</sup>	1958	Madras	Prof.M.S.Thacker	Grammar of Scientific Development
46 <sup>th</sup>	1959	Delhi	Dr.A.L.Mudaliar	Tribute to Basic Sciences
$47^{^{th}}$	1960	Bombay	Professor P.Parija	Impact of Society on Science
$48^{\text{th}}$	1961	Roorkee	Professor N.R.Dhar	Nitrogen Problem
$49^{\text{th}}$	1962	Cuttack	Dr.B.Mukerji	Impact of Life Sciences on Man
50 <sup>th</sup>	1963	Delhi	Professor D.S.Kothar	ri Science and the Universities

Session	Year	Place	Name	Title of the Presidential Address
51 <sup>st</sup>	1964	Calcutta	Professor Humayun Kabir	Science and the State
52 <sup>nd</sup>	1965	Calcutta	Professor Humayun Kabir	
53 <sup>rd</sup>	1966	Chandigarl	n Professor B.N.Prasad	Science in India
54 <sup>th</sup>	1967	Hyderabad	Professor T.R. Seshadri	Science and National Welfare
$55^{th}$	1968	Varanasi	Dr.Atma Ram	Science in India – Some Aspects
56 <sup>th</sup>	1969	Bombay	Dr.A.C.Joshi (Prof.A.C.Banerjee died prematurely)	A Breathing Spell: Plant Sciences in the Service of Men
57 <sup>th</sup>	1970	Kharagpur	Dr.L.C.Verman	Standardization : A Triple Point Discipline
$58^{\text{th}}$	1971	Bangalore	Dr.B.P.Pal	Agricultural Science and Human Welfare
$59^{\text{th}}$	1972	Calcutta	Professor W.D.West	Geology in the Service of India
$60^{\text{th}}$	1973	Chandigarl	n Dr.S.Bhagavantam	Sixty Years of Science in India
61 <sup>st</sup>	1974	Nagpur	Professor R.S.Mishra	Mathematics – Queen or Handmaiden
62 <sup>nd</sup>	1975	Delhi	Professor (Mrs.) Asima Chatterjee	Science and Technology in India: Present and Future
63 <sup>rd</sup>	1976	Waltair	Dr.M.S.Swaminathan	Science and Integrated Rural Development
64 <sup>th</sup>	1977	Bhubane- swar	Dr.H.N.Sethna	Survey, Conservation and Utilisation of Resources
65 <sup>th</sup>	1978	Ahmedaba	d Dr.S.M.Sircar	Science Education and Rural Development
66 <sup>th</sup>	1979	Hyderabad	Professor R.C.Mehrotra	Science and Technology in India During the Coming Decade(s)

Session	Year	Place	Name	Title of the Presidential Address
$67^{\text{th}}$	1980	Jadavpur	Professor A.K.Saha	Energy Strategies for India
68 <sup>th</sup>	1981	Varanasi	Professor A.K.Sharma	a Impact of the Development of Science and Technology on Environment
69 <sup>th</sup>	1982	Mysore	Professor M.G.K. Menon	Basic Research as an Integral Component of Self-reliant Base of Science and Technology
$70^{\text{th}}$	1983	Tirupati	Professor B. Ramachandra Rao	Man and the Ocean – Resource and Development
71 <sup>st</sup>	1984	Ranchi	Professor R.P.Bambal	n Quality Science in India – Ends and Means
$72^{\text{nd}}$	1985	Lucknow	Professor A.S.Paintal	High Altitude Studies
73 <sup>rd</sup>	1986	Delhi	Dr.T.N.Khoshoo	Role of Science and Technology in Environmental Management
74 <sup>th</sup>	1987	Bangalore	Professor (Mrs.) Archana Sharma	Resources and Human Well-being – Inputs from Science and Technology
75 <sup>th</sup>	1988	Pune	Professor C.N.R.Rao	Frontiers in Science & Technology
76 <sup>th</sup>	1989	Madurai	Dr.A.P.Mitra	Science & Technology in India: Technology Missions
$77^{\text{th}}$	1990	Cochin	Professor Yash Pal	Science in Society
78 <sup>th</sup>	1991	Indore	Professor D.K.Sinha	Coping with Natural Disaster : An Integrated Approach
$79^{\text{th}}$	1992	Baroda	Dr. Vasant Gowariker	Science, Population and Development
$80^{\text{th}}$	1993	Goa	Dr.S.Z.Qasim	Science and Quality of Life
81 <sup>st</sup>	1994	Jaipur	Professor P.N. Srivastava	Science in India: Excellence and Accountability
82 <sup>nd</sup>	1995	Calcutta	Dr.S.C.Pakrashi	Science, Technology and Industrial
83 <sup>rd</sup>	1996	Patiala	Professor U.R.Rao	Development in India Science and Technology for Achieving

Session	Year	Place	Name	Title of the Presidential Address
84 <sup>th</sup>	1997	Delhi	Dr.S.K.Joshi	Frontiers in Science & Engineering and Their Relevance to National Development
85 <sup>th</sup>	1998	Hyderabad	Professor P.Rama Rac	Science & Technology in Independent India: Retrospect and Prospect
86 <sup>th</sup>	1999	Chennai	Dr.(Mrs.) Manju Sharma	New Bioscience: Opportunities and Challenges as we Move into the Next Millennium
$87^{th}$	2000	Pune	Dr.R.A.Mashelkar	Indian S & T into the Next Millennium
88 <sup>th</sup>	2001	New Delhi	Dr.R.S.Paroda	Food, Nutrition and Environmental Security
89 <sup>th</sup>	2002	Lucknow	Professor S.S.Katiyar	Health Care, Education and Information Technology
90 <sup>th</sup>	2003	Bangalore	Dr.K.Kasturirangan	Frontier Science and Cutting-Edge Technologies
91 <sup>st</sup>	2004	Chandigarh	n Professor Asis Datta	Science and Society in the Twenty First Century: Quest for Excellence
92 <sup>nd</sup>	2005	Ahmedaba	d Prof.N.K.Ganguly	Health Technology as Fulcrum of Development for the Nation
93 <sup>rd</sup>	2006	Hyderabad	Dr.I.V.Subba Rao	Integrated Rural Development : Science and Technology
94 <sup>th</sup>	2007	Annama- lainagar	Prof.Harsh Gupta	Planet Earth
95 <sup>th</sup>	2008	Visakha- patnam	Prof.R.Ramamurthi	Knowledge based Society using Environmentally Sustainable Science and Technology
96 <sup>th</sup>	2009	Shillong	Dr. T. Ramasami	Science Education and Attraction of talent for Excellence in Research
97 <sup>th</sup>	2010	Thiruvant- hapuram	Dr. G. Madhavan Nair	Science and Technology challenges of 21st Century – National perspective

Session	Year	Place	Name	Title of the Presidential Address
98 <sup>th</sup>	2011	Chennai	Prof. K.C.Pandey	Quality Education and excellence in Scientific Research in Indian University.
99 <sup>th</sup>	2012	Bhubane- swar	Prof.Geetha Bali	Science and Technology for Inclusive Innovation - Role of Women
100 <sup>th</sup>	2013	Kolkata	Dr. Manmohan Singh Hon'ble Prime Minister of India	Science for Shaping The Future of India
101 <sup>st</sup>	2014	Jammu	Prof. Dr. Ranbir Chander Sobti	Innovations in Science & Technology for Inclusive Development
102 <sup>nd</sup>	2015	Mumbai	Dr. Sarjerao Bhaurao Nimse	Science and Technology for Human Development
103 <sup>rd</sup>	2016	Mysuru	Dr. Ashok Kumar Saxena	Science and Technology for Indigenous Development in India

Year	Name	Year	Name	
1913-14	Mr. D. Hooper	1973-76	Dr. S.M. Sircar	
1914-26	Dr. J.L. Simonsen	1974-77	Prof. R.D. Tiwari	
1914-20	Mr. P.S. Macmahon	1976-79	Prof. A.K. Sharma	
1920-25	Dr. C.V. Raman	1977-80	Dr. B. Ramachandra Rao	
1924-35	Dr. S.P. Agharkar	1979-82	Dr. D. Basu	
1926-30	Dr. Roland V. Norris	1980-83	Prof. Arun K. Dey	
1930-32	Dr. H.B. Dunnicliff	1982-85	Prof. (Mrs.) Archana Sharma	
1932-39	Mr. W.D. West	1983-86	Prof. M.K. Singal	
1935-40	Prof. J.N. Mukherjee	1985-88	Prof. D.K. Sinha	
1938-44	Prof. P. Parija	1986-89	Dr. (Miss) S.P. Arya	
1939-45	Prof. S.K. Mitra	1988-91	Dr. S.C. Pakrashi	
1944-45	Prof. P.C. Mitter	1989-92	Dr. (Mrs.) Gouri Ganguly	
1944-49	Prof. M. Qureshi	1991-94	Prof. D.P. Chakraborty	
1945-48	Prof. P.C. Mahalanobis	1992-95	Prof. H.P. Tiwari	
1948-52	Dr. B. Mukerji	1994-97	Prof. S.P. Mukherjee	
1948-52	Dr. B. Sanjiva Rao	1995-98	Dr. (Mrs.) Yogini Pathak	
1952-53	Dr. S.R. Sen Gupta	1997-2000	Prof. A.S. Mukherjee	
1952-55	Dr. B.N. Prasad	1998-2001	Prof. Uma Kant	
1953-57	Dr. U.P. Basu	2000-2003	Prof. A.B. Banerjee	
1955-58	Dr. B.B. Joshi	2001-2004	Prof. B. Satyanarayana	
1957-60	Dr. A.K. Dey	2003-2006	Prof. B.P. Chatterjee	
1958-61	Dr. B.N. Prasad	2004-2007	Prof. S.P. Singh	
1960-62	Prof. B.C. Guha	2006-2009	Prof. Avijit Banerji	
1961-65	Prof. P. S. Gill	2007-2010	Dr. Ashok K. Saxena	
1962-66	Dr. Atma Ram	2010-2013	Dr. Manoj Kumar Chakrabarti	
1965-68	Prof. Chandra Sekhar Ghosh	2010-2013	Dr. (Mrs.) Vijay Laxmi Saxena	
1966-70	Prof. A. K. Saha	2013-2016	Dr. Nilangshu Bhusan Basu	
1968-71	Prof. R.S. Mishra	2013-2016	Prof. Arun Kumar	
1970-73	Prof. (Mrs.) Asima Chatterjee	2016-2019	Prof. Gangadhar	
1971-74	Prof. Ram Chand Paul	2016-2019	Prof. Premendu P. Mathur	

# TREASURERS OF THE INDIAN SCIENCE CONGRESS ASSOCIATION

Year	Name	Year	Name	
1913-14	Dr. R. D. Hooper	1965-68	Prof. (Mrs.) Asima Chatterjee	
1914-16	Dr. J. L. Simonsen	1968-71	Dr. S. M. Sircar	
1916-19	Mr. R. D. Mehta	1971-74	Prof. A.K. Saha	
1919-20	Mr. D. R. Bhandarkar	1974-76	Prof. A. K. Sharma	
1920-21	Mr. W. W. K. Page	1976-77	Prof. A. K. Saha	
1920-21	Mr. Oswald Martin	1977-80	Prof. D. N. Kundu	
1921-22	Mr. A. H. Harley	1980-82	Prof. (Mrs.) A. Sharma	
1922-23	Mr. W. R. C. Brierley	1982-85	Prof. D. K. Sinha	
1923-24	Dr. C. V. Raman	1985-86	Prof. Asok Ghosh	
1924-25	Dr. Baini Prashad	1986-88	Dr. S. C. Pakrashi	
1925-26	Dr. S. L. Hora	1988-89	Prof. D. K. Sinha	
	Dr. Baini Prashad	1989-91	Prof. D. P. Chakraborty	
1930-31	Mr. K. C. Mahindra	1991-92	Dr. D. Basu	
1931-32	Mr. Jas Insch	1992-94	Prof. S. P. Mukherjee	
1932-34	Mr. K.C. Mahindra	1994-95	Dr. D. Basu	
1934-37	Dr. S. L. Hora	1995-98	Dr. S. B.Mahato	
1937-38	Rai Bahadur	1998-2000	Prof. A.B. Banerjee	
	Dr. S. L. Hora	2000-2001	Prof. S. P. Mukherjee	
1938-39	Mr. Percy Brown	2001-2003	Prof. B. P. Chatterjee	
1939-44	Prof. J. N. Mukherjee	2003-2004	Prof. A. B. Banerjee	
1944-49	Prof. P. Ray	2004-2006	Prof. Avijit Banerji	
1949-52	Prof. K. N. Bagchi	2006-2007	Prof. A. B. Banerjee	
1952-55	Prof. P. C. Mahalanabis	2009-2010	Prof. B. P. Chatterjee	
1955-58	Shri B. K. Sarkar	2010-2013	Er. N.B. Basu	
1958-60	Prof. B. C. Guha	2013-2016	Prof. Dhyanendra Kumar	
1960-65	Prof. P. K. Bose	2016-2019	Prof. Ranjit Kumar Verma	

### AUDIT REPORT & ACCOUNTS

31<sup>st</sup> March, 2016

### S. K. BHATTCHARIYA & CO.

CHARTERED ACCOUNTANTS

4, Kiran Shankar Roy Road "Raja Chambers" Kolkata - 700 001 Phone: 2248 2560

## INDEPENDENT AUDITORS REPORT TO THE MEMBERS OF INDIAN SCIENCE CONGRESS ASSOCIATION

### Report on the Financial Statements:

We have audited the accompanying financial statements of Indian Science Congress Association which comprises of the Balance Sheet and the Endowment Fund thereof as on 31<sup>st</sup> March, 2016 and the Income & Expenditure Account of Grants (Plan & Non-Plan) and Endowment Fund and also the Receipts and Payments Account for the year ended on that date annexed thereto and a summary of the significant accounting policies and other explanatory information.

### Management's Responsibility for the financial statements:

The Association's management is responsible for the preparation of these financial statements that give a true and fair view of the financial position, financial performance and closing cash/bank balances of the Association in accordance with the Accounting Standards and in accordance with the accounting principles generally accepted in India. This responsibility also includes the maintenance of adequate accounting records in accordance with the law for safeguarding the assets of the Association and for preventing and detecting frauds and other irregularities, selection and application of appropriate accounting policies, making judgments and estimates that are reasonable and prudent and design, implementation and maintenance of internal financial control that were operating effectively, for ensuring the accuracy and completence of accounting records relevant to the preparation and presentation of the financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error.

### **Auditors Responsibility:**

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with the Standards on Auditing issued by the Institute of Chartered Accountants of India. These standards require that we comply with the ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statement are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and the disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements of the financial statements, whether due to fraud or error. In making those risks assessment, the auditor considers internal control relevant to the Association's preparations and fair presentation of the financial statements in order to design audit procedures that are appropriate to the circumstances. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonable of the accounting estimates made by the management, as well as, evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### S. K. BHATTCHARIYA & CO.

CHARTERED ACCOUNTANTS

4, Kiran Shankar Roy Road "Raja Chambers" Kolkata - 700 001 Phone: 2248 2560

## INDEPENDENT AUDITORS REPORT TO THE MEMBERS OF INDIAN SCIENCE CONGRESS ASSOCIATION

### **Basis of Qualification:**

- 1) Grants received from Government including grants for capital expenditure have been treated as income violating AS-12. Further, no reconciliation for difference between the total asset account and non recurring fund grant account could be made available.
- 2) Liabilities as per actuarial valuation have not been provided for in respect of Pension, Gratuity and Leave Encashment (Refer Note no 1,2 and 3 to the Notes to Account) thereby violating AS-15.
- 3) Non accounting of Income Tax deducted at source Rs. 7,49,472 on Term Deposits during 2015-16 (Refer note no 10 to the Notes to Accounts).
- 4) Non provision/disclosure of contingent liability of Rs. 1,81,46,810 for income tax demand under dispute/appeal for AY 2012-13 and AY 2013-14 (Refer note no 12 to the Notes to Accounts), violating AS 29.
- 5) Amount sent to various chapters for organizing seminars, symposia, discussion and lectures etc is changed off to expenses (ISCA Chapters) without any relation to the nature and actual expenses incurred. Further, any income made by the Chapters are not accounted for. Out of total amount of Rs. 88.62 lakes (Rs. 44.00 lacks for regular expenses and Rs. 44.62 for seminars etc) sent to 25 nos of chapters during 2015-16, utilisation certificates have been received from only 18 chapters as on the date of audit.
- 6) Non-recording and non accounting of cheques in hand receive towards subscription and admission fees for the subsquent year. Total amount of such cheques in hand could not be ascertained in absence of adequate details.
- 7) Huge loss of Interest incurred for Endowment Fund as it is kept in the savings bank account instead of Term Deposit as per standard practice of the Association.

### S. K. BHATTCHARIYA & CO.

CHARTERED ACCOUNTANTS

4, Kiran Shankar Roy Road "Raja Chambers" Kolkata - 700 001 Phone: 2248 2560

### INDEPENDENT AUDITORS REPORT TO THE MEMBERS OF INDIAN SCIENCE CONGRESS ASSOCIATION

### Opinion

In our opinion and to the best of our information and according to the explanations given to us, financial statements, except for the possible effects stated on the basis of qualification give the information required by the law in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India.

- a) In the case of Balance Sheet of the state of affairs of the association as at 31st March, 2016;
- b) In the case of Income and Expenditure Account, of the surplus for the year ended on 31<sup>st</sup> March, 2016;
- c) In the case of Receipts and Payments Account, of the actual receipts and payments for the year ended on 31<sup>st</sup> March, 2016 and of the closing cash/Bank balances as on 31<sup>st</sup> March, 2016.

### **Report on Other Legal and Regulatory Requirements:**

We report that:-

- I) We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit.
- ii) In our opinion, proper books of accounts as required by law have been kept by the Association so far as appears from the examination of those books.
- iii) The Balance Sheet, Income and Expenditure Account and the Receipts and Payments Account dealt with by this report are in agreement with the books of account.
- iv) In our opinion the aforesaid financial statement comply with the Accounting Standards issued by ICAI, wherever applicable except for accounting of Government Grant (AS-12), Liabities on Pension, gratuaty and Leave Encashment (AS-15) and Contingent Liabities (AS-29)
- v) With respect to the matters to be included in the Auditor's Report, in our opinion and to the best of our information and according to the explanations given to us
  - i. The Association has disclosed the impact of pending litigation on its financial position in Note12 under Notes to account.
  - ii. The Association did not have any long term contracts including derivative contracts.
  - iii. There were no amounts which were required to be transferred to the Investor Education and Protection Fund by the Assocition.

For S.K. Bhattachariya & Co. Chartered Accountants
FRN-301081E

Shydrick Remai Newskelp
CA.S.K.Mukharjee

(Partner)

MN-017607

Dated: 20/09/2016 Place: Kolkata

### **Basic Qualification**

1. Grant Received from Government including grants for capital expenditure have been treated as income violating AS-12. Further, no reconciliation for difference between the total asset account and non recurring fund grant account could be made available.

- 2. Liabilities as per actuarial valuation have not been provided for in respect of Pension, Gratuity and Leave Encashment (refer to Note no 1,2 and 3 to Notes to Accounts) thereby violating AS-15
- 3. Non accounting of Income Tax deducted at source Rs.7,49,472 on Term Deposit during 2015-16 (refer to note no 10 to the Notes to accounts)
- 4.Non Provision/disclosure of contingent liability of Rs.1,81,46,810 for income tax demand under dispute/appeal for AY2012-13 and 2013-14 (Refer note no 12 to the Notes to Accounts), violating AS29
- 5 Amount sent to various chapters for organizing seminars, symposia, discussion and lectures etc is charged off to expenses (ISCA Chapters) without any relation to the actual expenses incurred. Further, any income made by Chapters are not accounted for. Out of total amount of Rs.88.62 lakhs (Rs.44.00 lakhs for regular expenses and Rs.44.62 for seminars etc) sent to 25 nos chapters during 2015-16, only utilization certificates have been received from 18 chapters as on date of audit.

### **Reply**

Transferring the amount equal to Fixed Assets to Non Recurring Fund Account has been practiced since long and no objection was raised in the past. From next financial year the total Capital Grant will be transferred to Non recurring Fund Account.

As for the reconciliation of Non-Recurring Fund Grant with that of Fixed Assets, Necessary guidelines to be provided by the audit in this regard as this practice was not followed from the beginning.

Excess Provisions has already been made in case of Gratuity and Leave Encashment as per decision of Executive Committee. As for Pension Liability, there is a total uncovered liability of Rs.212.72 lacs, for which the funding will be done in a phase wise manner.

The Form 16 Issued by bank towards TDS on interest does not clearly reflect from which interest the TDS has been deducted. Necessary details have been requested from the Bank to provide for accounting the same.

Since the Liability of income tax is under appeal therefore it has not been provided in the books. The Contingent Liability is clearly mentioned in the Notes to the Accounts.

As per practice that total grant send to the Chapter has been charged as Revenue Expenditure. On providing Utilization Certificates, Statement of Expenditure the next Grant is released.

Out of 25 Chapters till date 18 no of Chapters have provided Utilization Certificate. 3 Chapters have been closed down as per resolution of executive Committee, as they were unable to provide Utilization, 2 Chapters are under scrutiny and remaining 2 chapters will be provided grant only after receipt of Utilization Certificate.

- 6 Non-recording and non accounting of cheques in hand towards subscription and admission fee for the subsequent years. Total no of such cheques in hand could not be ascertained in absence of adequate details.
- 7. Huge loss of interest incurred for Endowment Fund as it is kept in savings Bank accounts instead of Term Deposit as per standard practice of the Association.
- The Cheques received prior to last 2 days of the end of the financial year will be returned with a request to resend them after 1<sup>st</sup> April of the following year. The Cheques received on the last 2 days will be recorded and accounted.

Will take the matter with the Banks to convert the unutilized amount lying in the saving bank account to convert in to flexi deposit wherever possible

## 14, DR. BIRESH GUHA STREET, KOLKATA 700 017 Receipts and Payments Account as on 31st March, 2016

RECEIPTS				PAYMENTS			
Particulars	Non - Plan	<u>Plan</u>	Total		Non - Plan	Plan	Total
	Rs	Rs	<u>Rs</u>		Rs	Rs	Rs
Opening Cash & Bank Balances :				Establishment	1,37,05,086.00	4,52,837.00	1,41,57,923.00
Cash- in- hand	-	-	2,000.00	Ad-hoc Bonus	00'080'69		00'080'69
Cash at Bank : State Bank of India	1	1	1,84,85,868.21	Contribution to New Pension Scheme Fund	3,72,444.00		3,72,444.00
: Central Bank of India	1	1	70,21,788.86	Contribution to Staff Pension Fund	37,78,108.00		37,78,108.00
Membership Subscription (All categories)	23,87,082.00		23,87,082.00	Electricity Charges		5,54,834.00	5,54,834.00
Travelling Expenses		1,32,597.00	1,32,597.00	Telephone Charges	1,21,512.00		1,21,512.00
Admission Fees	1,77,400.00		1,77,400.00	Municipal Taxes	181.00		181.00
Life Membership Subscription	46,18,300.00		46,18,300.00	Security Guard Expenses	11,44,995.00		11,44,995.00
Government Grant	20,000,000.00	5,50,00,000.00	6,00,00,00,000.00	Cleaning & Building Maintenance	3,26,833.00		3,26,833.00
Sale of Tender Paper	16,000.00		16,000.00	Leave Travel Concession	2,18,115.00		2,18,115.00
Journal Subscription (Non Members)		28,491.00	28,491.00	Insurance	8,346.00		8,346.00
Misc Income	3,025.00		3,025.00	Guest House Expenses	16,378.00		16,378.00
Advance Realised :			1	Advertisement		92,460.00	92,460.00
General	26,60,989.00		26,60,989.00	Post. & Stn. For Sec. Pres. & Convenors		2,10,000.00	2,10,000.00
Guest House Lodging Charges	32,200.00		32,200.00	Upgrd. & Imvro. Of Existing Facilities		2,85,810.00	2,85,810.00
Deposit Account	1,76,560.00		1,76,560.00	General Printing		12,85,111.00	12,85,111.00
Reimb of Service Chgs for ISCA Lecture Hall	81,500.00		81,500.00	Sessional Publications		6,79,012.00	6,79,012.00
Establishment	21,277.00		21,277.00	Publication of Proceedings		6,79,012.00	6,79,012.00
Postage		1,15,230.00	1,15,230.00	Publication of Journal		18,96,220.00	18,96,220.00
TDS	1,56,998.00	-	1,56,998.00	Re-imbursement of Children Edu Allow	1,74,931.00		1,74,931.00
ISCA Office Car		1,05,000.00	1,05,000.00	Retention Money		1,64,253.00	1,64,253.00
Expenses for Organising Seminars, Symposia		37,830.00	37,830.00	Stationery Expenses		1,49,535.00	1,49,535.00
Retention Money	1	1,000.00	1,000.00	Postage		17,89,754.00	17,89,754.00
				Contingency		98,065.50	98,065.50
				Travelling Expenses		45,32,003.00	45,32,003.00
			_	Expenses for Delegation to Meeting Abroad		38,823.00	38,823.00
			_	ISCA Chapters		44,00,000.00	44,00,000.00
			-	Subscription of Journals		470.00	470.00
			_	Expenses for Organising Seminars, Symposia		45,00,000.00	45,00,000.00
				Expenses for Official Languages		28,925.00	28,925.00
			_	Prepaid expenses	11,450.00		11,450.00
				Advance:			-
				General	51,53,472.00		51,53,472.00
				Festival		85,500.00	85,500.00
				Deposit	1,00,873.00		1,00,873.00
				Honorarium to ISCA Platinum Jubilee Lecturers		1,20,000.00	1,20,000.00
				Repair & Renovation of Building		24,000.00	24,000.00
				Poster Presentation Awards		1,25,000.00	1,25,000.00

Receipts and Payments Account as on 31st March, 2016

0 1 2 0 2 2	5 <b>L</b>				o H N H N A Y G			
	$\mid$	ī	ā		FAIMENIS		ī	Ē
Particulars	Non	Non - Plan	<u>Plan</u>	Total	Particulars	Non - Plan	<u>Plan</u>	<u>  Iotal</u>
	Ľ.	Rs	Rs	Rs		Rs	Rs	Rs
					Prepaid Upgradation of Improv of Existing Facility	12,727.00	1	12,727.00
				1	TDS	1,55,103.00		1,55,103.00
				1	Screening and Evaluation of Paper		80,000.00	80,000.00
					Legal Expenses		85,497.00	85,497.00
					Young Scientists Awards		2,75,000.00	2,75,000.00
					Young Scientists Travelling Expenses		1,85,872.00	1,85,872.00
					Young Scientists Contingency		10,500.00	10,500.00
					Young Scientists Advertisement		45,000.00	45,000.00
					Sitting Fee		11,35,000.00	11,35,000.00
					Leviries to Staff Car Driver	2,000.00		2,000.00
					Sessional Expenses		18,634.00	18,634.00
					Operation & Maintenance of A.C Plant	1,06,561.00		1,06,561.00
					Transfer to Life Membership Subscription Fund	35,00,000.00		35,00,000.00
					Outstanding Liabilities	35,886.00	3,14,367.00	3,50,253.00
					ISCA Office Car		7,11,986.00	7,11,986.00
					Annex Building		8,550.00	8,550.00
					AirConditioner of Lecure Hall		25,500.00	25,500.00
					Asutosh Mookerjee Award Fund	46,00,000.00		46,00,000.00
					Furniture & Fittings	1,48,166.00		1,48,166.00
					Equipment		7,000.00	7,000.00
					Prepaid Insurance	11,685.00		11,685.00
					Computer Machine	1	22,450.00	22,450.00
					Cost of Gold Medals and Plaque		5,82,113.00	5,82,113.00
					Bank Charges	14,023.25	1	14,023.25
					General Fund	5,00,000.00	-	5,00,000.00
					Closing Cash & Bank Balances :			
					Cash- in- hand			2,000.00
					Cash at Bank :State Bank of India			3,08,58,495.46
					: Central Bank of India			54,13,591.86
		+						
	1,53,31	1,53,31,331.00 5	5,54,20,148.00	9,62,61,136.07		3,42,87,955.25	2,56,99,093.50	9,62,61,136.07
	The state of the s	d		Rulling				
	20000	Thou.		Doniit Vumer Verme	Shydenel Kimme Newskeyn.			
Place: Kolkata Date : 20/09/2016	Gangaunar General Secretary (Membership Affairs)	mar Membership	Affairs)	ranju rumar ve Treasurer				1
					Membership No 017607			

14, Dr Biresh Guha Street, Kolkata 700 017

	Balance	e Sheet as at March 31st	,2016	
			,	(Amount in Rs.)
	Particulars	Note	As at March 31, 2016	As at March 31, 2015
I	LIABILITIES			·
1	FUND			
(a)	Reserves and surplus- Fund	1	12,59,01,948.20	10,51,22,083.89
	- Grant	1a	2,15,44,801.67	2,07,64,099.67
2	Non - current liabilities:			
(a)	Long - term provisions	2	4,21,43,571.57	4,34,69,674.90
3	Current liabilities			
(a)	Other current liabilities	3	17,98,932.00	9,66,712.00
	Total		19,13,89,253.44	17,03,22,570.46
II	ASSETS			
1	Non - current assets:			
	Fixed assets	4	2,18,90,802.54	2,26,53,316.19
	(ia) Capital work-in-progress	4	61,493.00	52,943.00
<i>a</i> >	N	_	10.01.10.450.20	11 50 00 440 44
` '	Non - current investments Long-term loans and advances	5 6	13,01,10,453.30 22,69,425.00	11,78,09,443.44 23,39,037.00
(c) (d)	Other non-current assets	7	3,92,414.51	3,92,414.51
2	Current assets:			
(a)	Inventories	8	2,69,614.77	13,58,796.25
(b)	Cash and cash equivalents	9	3,62,77,565.32	2,55,12,750.07
(c)	Short-term loans and advances	10	34,200.00	32,400.00
(d)	Other current assets	11	83,285.00	1,71,470.00
	Total		19,13,89,253.44	17,03,22,570.46
	Significant accounting policies	17		
	Notes to accounts	18		

The notes are an integral part of these financial statements. As per our attached report of even date

S.K.Bhattachariya & Co Chartered Accountants

FRN 301081E

Gangadhar

General Secretary (Membership Affairs)

Ranjit Kumar Verma Treasurer

(CA.S.K.Mukharjee)

Partner

Membership No 017607

Place:Kolkata Date: 20/09/2016

### 14, Dr Biresh Guha Street, Kolkata 700017

### INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2016

Sr. No	Particulars	NOTE -	2015-16	2014-15
5r. No	Farticulars	NOTE	Rs	Rs
<b>A</b> .	INCOMES			
1	Grant From Government	12	6,00,00,000.00	5,40,44,000.00
	Less: Trf to Asutosh Mookerjee Fund		(46,00,000.00)	
	Less: Trf to Non Recurring Fund:		(7,80,702.00)	(38,55,871.00
			5,46,19,298.00	5,01,88,129.00
2	Income From Other Activities	13	35,48,148.00	39,65,040.00
			01,10,11000	
			5,81,67,446.00	5,41,53,169.00
3.	EXPENDITURE			
3	Expenses on Scientific Activities & Awards	14	1,60,73,047.00	1,17,20,898.50
4	Other Expenses	15	1,44,52,290.71	1,48,49,209.17
5	Employees' Benefit Expenses	16	1,88,64,911.00	2,00,31,984.00
6	Depreciation		13,69,911.17	11,82,049.5
				_
			5,07,60,159.88	4,77,84,141.2
	Excess of Income Over Expenditure		74.07.296.12	62 60 027 7
	Add: Surplus/(Deficit)Carried over from Last Year		74,07,286.12	63,69,027.77
	Aud : Surprus/(Derich) Carried over from Last Tear		1,74,25,668.41	1,10,56,640.64
			2,48,32,954.53	1,74,25,668.41
	C. C. A. C. D.L.		•	•
	Significant Accounting Policies	17		
	Notes on Account	18		
	In terms of our report of even date annexed hereto.			
	Jan		Ruerema	
	Gangadhar		Ranjit Kumar Verma	
	General Secretary (Membership Affairs)		Treasurer	
			Bhattachariya & Co	
		Cha	artered Accountants	
			FRN 301081E	
			Shyonal Kuma Musha	j
			(ČA.S.K.Mukharjee)	
Place: Koll	kata		Partner	

### Notes to Financial Statement For the year ended 31st March 2016

NOTE 1		Year Ended 31.03.2016 Amount	Year Ended 31.03.2015 Amount
Fund		Rs	Rs
Tuna	Other Fund	KS	KS
	General Fund		
	Opening Balance	18,00,669.81	12,97,182.35
	Addition during the Year	3,801.34	5,03,487.46
	Payement made during the year	5,00,000.00	-
	Net Balance at the end of the year	13,04,471.15	18,00,669.81
	Reserve Fund	FO 40 000 00	47.20.217.40
	Opening Balance	52,49,998.82	47,28,316.40
	Addition during the Year	5,91,705.59	5,21,682.42
	Net Balance at the end of the year	58,41,704.41	52,49,998.82
	Public Information Officer Fund		
	Opening Balance	3,093.00	2,905.00
	Addition during the Year	385.00	188.00
	Net Balance at the end of the year	3,478.00	3,093.00
	Sir Asutosh Mookerjee Fellowship Award Fund		
	Opening Balance	11,20,888.00	37,42,510.00
	Addition during the Year	47,48,373.00	-
	Less Payments during the year	9,20,000.00	26,21,622.00
	Net Balance at the end of the year	49,49,261.00	11,20,888.00
	m	1 20 00 011 50	01.51.610.60
	Total	1,20,98,914.56	81,74,649.63
	Asset Fund		
	Building Fund		
	Opening Balance	9,28,026.46	8,80,965.48
	Addition during the Year	49,134.60	47,060.98
	Net Balance at the end of the year	9,77,161.06	9,28,026.46
	House Building Advance Fund		
	Opening Balance	8,77,383.83	8,21,184.62
	Addition during the Year	59,545.70	56,199.21
	Net Balance at the end of the year	9,36,929.53	8,77,383.83
	ISCA Development Fund		
	-	1 02 17 045 16	04 74 100 01
	Opening Balance	1,02,17,045.16	94,74,109.01
	Addition during the Year  Net Balance at the end of the year	7,15,831.43 1,09,32,876.59	7,42,936.15
	,		,,,
	Plan Construction of Building Fund		
	Opening Balance	1,13,47,499.32	79,83,188.32
	Addition during the Year		33,64,311.00
	Net Balance at the end of the year	1,13,47,499.32	1,13,47,499.32
		2,41,94,466.50	2,33,69,954.77

	Life Membership Subscription Fund		
	Opening Balance	5,61,51,811.08	4,76,17,718.35
	Addition during the Year	95,49,221.53	96,80,947.73
		6,57,01,032.61	5,72,98,666.08
	less - paymentduring the year	9,25,420.00	11,46,855.00
	Net Balance at the end of the year	6,47,75,612.61	5,61,51,811.08
	Credit Balance in Income Expenditure Account	Rs	Rs
	Opening Balance	1,74,25,668.41	1,10,56,640.64
	Addition during the Year	74,07,286.12	63,69,027.77
	Net Balance at the end of the year	2,48,32,954.53	1,74,25,668.41
	Total	12,59,01,948.20	10,51,22,083.89
NOTE 1a	1		
Grant	(Non Recurring fund grant)		
	Opening Balance	2,07,64,099.67	2,02,72,539.67
	Addition during the Year	7,80,702.00	4,91,560.00
	Net Balance at the end of the year	2,15,44,801.67	2,07,64,099.67
NOTE 2			
Non - C	urrent Liabilities		
	Long Term Provision		
	Gratuity Fund		
	Opening Balance	1,65,30,856.21	1,64,94,897.10
	Addition during the Year	9,65,667.28	9,35,836.11
		1,74,96,523.49	1,74,30,733.21
	Less Payments during the year	18,47,721.00	8,99,877.00
	AddTransfer to Fund		-
	Net Balance at the end of the year	1,56,48,802.49	1,65,30,856.21
	Pension Fund		
	Opening Balance	1,49,98,283.43	1,23,66,882.71
	Addition during the Year	48,86,268.53	6,31,103.72
		1,98,84,551.96	1,29,97,986.43
	Less Payments during the year	- 48,57,951.00	4,99,703.00
	AddTransfer to Fund		25,00,000.00
	Net Balance at the end of the year	1,50,26,600.96	1,49,98,283.43
	Leave Encashment Fund		
	Opening Balance	1,19,40,535.26	1,13,37,123.41
	Addition during the Year	7,11,072.86	6,63,758.85
		1,26,51,608.12	1,20,00,882.26
	Less Payments during the year	11,83,440.00	60,347.00
	AddTransfer to Fund	-	-
	Net Balance at the end of the year	1,14,68,168.12	1,19,40,535.26
	Total	4,21,43,571.57	4,34,69,674.90
			·

### NOTE 3

### **Current liabilities**

Non Plan	1,39,245.00	35,886.00
Plan	13,38,086.00	5,71,059.00
	14,77,331.00	6,06,945.00
Deposits		
As per Last Account	1,94,814.00	1,54,941.00
Add: Addition	75,687.00	39,873.00
	2,70,501.00	1,94,814.00
Plan Retention Money		
Opening	1,64,253.00	1,64,253.00
Addition during the year	-	-
Less payement during the year	1,63,253.00	-
Net Balance at the end of the year	1,000.00	1,64,253.00
Advance		_
Membership Subscription	50,100.00	700.00
	50,100.00	700.00
Total	17,98,932.00	9,66,712.00

NOTE -4 CALCULATION FOR DEPRECIATION 2016-2017	CIATIO	,	A 4.4150	7-1-0					1			
raniculars	Late	as on 01-04-15	Addition	Adjustment	as on 31-03-16	upto 31-03-15	for the year	of Depr.	eciation	as on 31-03-16	as on 31-03-15	to 31-03-10 not
		Rs	Rs	Rs	Rs	Rs	Rs	Rs	as on 31-03-10 Rs	Rs	Rs	considered
AGAINST BUILDING FUND	L											
Main Building	10	2,58,964.25	•	•	2,58,964.25	40,927.38	2	1	43,515.78	2,15,448.47	2,18,036.87	1,92,152.83
Annexe Building	10	64,191.61			64,191.61	10,165.14		'	10,808.08	53,383.53	54,026.46	47,597.14
TOTAL	4	3,23,155.86	•	•	3,23,155.86	51,092.52	3,231.34		54,323.86	2,68,832.00	2,72,063.33	2,39,749.97
AGAINST PLAN GRANT FOR												
NETURBISHING OFFICE	$\downarrow$											
Notified with Refurbishing	10	27 75 466 82			27 75 466 82	10 12 187 53	64 014 90		10 76 202 43	16 99 264 37	17 63 279 27	11 23 130 28
ii)Tubewell	10	4.67.573.12			4.67.573.12	27.571.59			29.315.30	L	4.40.001.53	4.22.564.50
iii)AirConditioning of Lecture Hall	10	32,04,590.74	25,500.00	ľ	32,30,090.74	2			2,43,607.52	L	29,76,485.41	28,32,222.50
TOTAL	Ц	64,47,630.68	25,500.00		64,73,130.68				13,49,125.26		51,79,766.21	43,77,917.28
AGAINST NON-PLAN GRANT NON-												
RECURRING FUND GRANT	_											
i) Fax Machine	10	51,979.20			51,979.20	1,143.25		,	1,215.54	50,763.66	50,835.95	50,113.08
ii)EPABX Machine	9	7,72,920.00			1,72,920.00		4,363.48		39,914.49			93,734.15
IOIAE	+	7,24,039.20			2,24,039.20	30,034.20	4,400.77		41,130.03	1,03,709.17	1,00,204.34	1,43,047.23
<u>AGAINST GARAGE BUILDING</u> <u>FUND GRANT</u>												
Garage Building	10	10,701.95			10,701.95		127.73	٠	2,147.68			
TOTAL	Ц	10,701.95			10,701.95	2,019.95			2,147.68	8,554.27	8,682.00	7,404.66
AGAINST NON-PLAN GRANT FOR TYPEWRITER		9 9 9							1			
i) Typewriter TOTAL	01	9,088.79		. .	9,088.79	14.81	0.97		15.78	9,073.01	9,073.98	9,064.26
AGAINST PLAN NON-RECURRING FUND GRANT												
i) Typewriter	10	48,417.49			48,417.49	3,294.78	208.33		3,503.11	44,914.38	45,122.71	43,039.44
II) Furniture General	10	9,79,876.81	1,48,166.00		11.28.042.81	2,68,833.67	33,367.66	,	3,02,201.33	8,25,841.48	7,11,043.14	3,77,366.51
Lecture Hall	10	90,726.00			90,726.00	37,972.46			42,117.17	48,608.83	52,753.54	11,306.40
Guest House	10	1,40,334.04			1,40,334.04	58,173.90	3,679.14	,	61,853.04	78,481.00	82,160.14	45,368.79
AirConditioning of Main Building	10	11,81,906.49			11,81,906.49	3,62,161.04	7 769 19		4,00,779.65	7,81,126.84	8,19,745.45	4,33,559.37
iv)Duplicating Machine	10	17,748.90			17,748.90	783.91		,	833.45	16,915.45	16,964.99	16,469.58
v)Fixture	10	35,755.75	•		35,755.75	2,346.21	148.41	1	2,494.62	33,261.13	33,409.54	31,925.46
vi)Electronic Typewriter	10	31,642.97			31,642.97	1,392.23	88.03	,	1,480.25	30,162.72	30,250.74	29,370.49
VII)Xerox Machine	2 6	74,880.00	22 450 00		0.08.048.00	37,075.41	3,780.46		40,855.87	34,024.13	37,804.39	7 4 7 5 4 7 90
ix)Projectors	9 6	52,600.00	- 22,430.00		52,600,00	8.202.81			12.642.53	39.957.46	44.397.18	1.01.335.90
x)Construction of Boundry Wall	9	1,01,656.95			1,01,656.95	9,900.52			10,526.70	91,130.25	91,756.43	85,494.63
xi)Digitization of ISCA Old Proceedings	09	1,68,786.10		-	1,68,786.10	60,509.78	9.52		60,519.30	1,08,266.80	1,08,276.32	1,08,260.46
xii)Modernisation of ISCA Exhib Board	10	2,26,885.00	,		2,26,885.00	90,995.95		,	97,848.47	£,	1,35,889.05	67,363.86
Xiii) PA Systems	10	84,725.00			84,725.00	28,052.61	1,774.24		29,826.85	54,89	56,672.39	38,930.03
xiv) Email	9	13,500.00	7 44 086 00	- 4 69 034 70	13,500.00	•	- 15 702 32	- 00 227 20		1.00	0 11 527 27	- 264 344 30
xy/Onice Cal xvi/Web Site	2 09	65,900.00	1,1,200,000	1		42,494.61				23,090.31	23,405.39	22,880.26
xvii)Laptop	09	3,57,860.00			3,57,860.00	1,53,138.16	1,22		2,75,971.26		2,04,721.84	
xviii)Software	09	5,98,247.00		Ц	Ц	4,85,701.06			Ш	Ш	1,12,545.94	
TOTAL	4	58,18,379.19	8,82,602.00	4,68,031.70	62,32,949.49	22,80,744.51	3,84,122.08	1,60,327.20	25,04,539.36	37,28,410.12	35,37,634.68	21,89,429.63

,16,42,723.58 3,46,407.4 20,436.73 8,554.50 28,991.23 50,381.07 17,348.60 34,357.85 14,380.95 66,087.39 2,043.67 855.45 2,899.12 49,618.94 49,618.94 25,394.04 14,229.18 4,807.37 53,844.88 ,03,709.19 28,41,657.88 **78,95,223.56** 6,443.61 17,348.60 52,750.90 22,080.00 92,179.50 15,102.00 47,79,304.46 47,79,304.46 17,348.60 52,750.90 22,080.00 92,179.50 1,12,95,474.13 3,05,48,539.74 10 9 9 9 AGAINST PLAN AD-HOC FUND GRANT AGAINST NON-RECURRING GRANT FROM NATIONAL ACABEMY OF AGRICULTURAL SCIENCE COmputer with Printer PLAN SUBSCRIPTION OF JOURNAL TOTAL BUST OF ASHUTOSH MOOKERJEE NON EARMARKED FIXED ASSETS TOTAL TOTAL BUILDING UNDER CONST Building/Lift Building Marble Plaque **Building Third Floor** 

### NOTE 5

### Non - Current Investments

General Fund         46,038.40         42,237.06           In Bank         46,038.40         42,237.06           Reserve Fund		Rs	Rs
Reserve Fund		47,000,40	-
Reserve Fund         46,038.40         42,237.06           In Term Deposit         56,68,465.94         51,29,604.35           In Bank         73,238.47         70,394.47           57,41,704.41         51,99,998.82           Pension Fund           In Term Deposit         1,13,79,431.96         1,04,83,255.43           In Bank         36,44,723.00         45,12,582.00           In Bank         39,577.31         38,040.73           In Term Deposit         61,4427.27         5,66,829.67           In Bank         39,577.33         38,040.00           Life Membership Subscription Fund         61,005.20         6,04,870.00           In Term Deposit         61,009,226.76         5,61,84,327.23           In Bank         36,09,285.85         95,463.85           Gratuity Fund         79,73,804.79         73,52,730.51           In Term Deposit         79,73,804.79         73,52,730.51           In Term Deposit         64,70,8512.61         5,62,79,791.08           In Term Deposit         6,40,724.44         5,92,680.78           In Bank         2,96,205.08         2,84,703.08           In Term Deposit         8,76,5318.73         86,55,783.30           In Term Deposit         8,76,5318	-	46,038.40	42,237.06
Reserve Fund	III Bank	46 038 40	42 237 06
In Term Deposit	Reserve Fund	40,036.40	42,237.00
Rank   73,2847   70,3947   70,39487   70,39487   70,39487   70,4041   51,999888   70,4041   70,4041   70,40988   70,4041   70,40988   70,4084		56.68.465 94	51.29.604.35
Pension Fund           In Term Deposit         1,13,79,431,96         1,04,83,255,43           In Bank         36,44,723,00         45,12,82,00           Building Fund         1,50,24,154,96         1,49,95,837,43           In Term Deposit         6,14,427,27         5,66,829,67           In Bank         39,577,93         38,040,9           Life Membership Subscription Fund         6,10,99,226,76         5,61,84,327,23           In Bank         36,09,285,85         95,463,85           In Bank         36,09,285,85         95,463,85           In Term Deposit         79,73,804,79         73,52,730,51           In Bank         76,74,997,70         91,78,125,70           In Bank         76,74,997,70         91,78,125,70           In Term Deposit         6,40,724,44         5,92,680,74           In Term Deposit         6,40,724,44         5,92,680,74           In Term Deposit         8,76,53,18,73         86,55,783,38           In Term Deposit         8,76,53,18,73         86,55,783,38           In Term Deposit         87,65,318,73         86,55,783,38           In Term Deposit         87,65,318,73         86,55,783,38           In Term Deposit         87,65,318,73         86,55,783,38      <	-		
In Term Deposit         1,13,79,431.96         1,04,83,255.43           In Bank         36,44,723.00         45,12,582.00           Building Fund         1,50,24,154.96         1,49,95,837.43           In Term Deposit         6,14,427.27         5,66,829.67           In Bank         39,577.93         38,040.93           In Erm Deposit         6,14,095.22         6,04,870.60           In Term Deposit         6,10,99,226.76         5,61,84,327.23           In Bank         36,09,285.85         95,463.85           6,47,08,512.61         56,27,979.08           In Term Deposit         79,73,804.79         73,52,730.51           In Bank         76,74,997.0         91,781.25.70           In Term Deposit         6,40,724.44         5,92,680.74           In Term Deposit         6,40,724.44         5,92,680.74           In Bank         2,96,205.08         2,84,703.08           Sex Pevelopment Fund         87,65,318.73         86,55,783.30           In Bank         21,67,557.86         15,61,261.86           In Bank         21,67,557.86         15,61,261.86           In Bank         21,67,557.86         15,61,261.86           In Bank         59,76,773.12         55,08,026.26           In		<del></del>	
Name	Pension Fund		
Building Fund           In Term Deposit         6,14,427.27         5,66,829.67           In Bank         39,577.93         38,040.93           6,54,005.20         6,04,870.60           Life Membership Subscription Fund         6,10,99,226.76         5,61,84,327.23           In Bank         36,09,285.85         95,463.85         69,463.85           In Bank         6,470,8512.61         5,62,79,791.08           Cartuity Fund           In Term Deposit         79,73,804.79         73,52,730.51           In Bank         76,74,997.70         91,78,125.70           In Bank         76,74,997.70         91,78,125.70           In Term Deposit         6,40,724.44         5,92,680.74           In Bank         2,96,205.08         2,847.03.08           2,936,929.52         8,77,383.82           ESCA Development Fund           In Term Deposit         87,65,318.73         86,55,783.30           In Bank         21,67,557.86         15,61,261.86           In Bank         21,67,557.86         15,61,261.86           In Bank         59,76,773.12         55,08,026.26           In Term Deposit         59,76,773.12         55,08,026.26           In Bank         54,	In Term Deposit	1,13,79,431.96	1,04,83,255.43
Description   Composit   Compos	In Bank	36,44,723.00	45,12,582.00
In Term Deposit   6,14,427.27   5,66,829.67   In Bank   39,577.93   38,040.93   6,54,005.20   6,04,870.60		1,50,24,154.96	1,49,95,837.43
R Bank   39,577.93   38,040.93	_		
1	-	6,14,427.27	5,66,829.67
In Term Deposit   6,10,99,226.76   5,61,84,327.23   In Bank   36,09,285.85   95,463.85   6,47,085,1261   5,62,79,791.08   6,47,08,512.61   5,62,79,791.08   6,47,08,512.61   5,62,79,791.08   79,73,804.79   73,52,730.51   In Term Deposit   79,73,804.79   73,52,730.51   In Bank   76,74,997.70   91,78,125.70   1,5648,802.49   1,6530,856.21   1,00,30,856.21   1,00,30,856.21   1,00,30,929.52   1,00,30,856.21   1,00,30,929.52   1,00,30,856.21   1,00,30,929.52   1,00	In Bank		38,040.93
Name		6,54,005.20	6,04,870.60
Sample   S			
Cartuity Fund	*		
Term Deposit   79,73,804.79   73,52,730.51     In Famk   76,74,997.70   91,78,125.70     1,56,48,802.49   1,65,30,856.21     House Building Advance Fund   6,40,724.44   5,92,680.74     In Fam Deposit   6,40,724.44   5,92,680.74     In Bank   2,96,205.08   2,84,703.08     9,36,929.52   8,77,383.82     Is CA Development Fund   87,65,318.73   86,55,783.30     In Fam Deposit   87,65,318.73   86,55,783.30     In Bank   21,67,557.86   15,61,261.86     1,09,32,876.59   1,02,17,045.16     In Term Deposit   59,76,773.12   55,08,026.26     In Bank   54,91,395.00   64,32,509.00     In Bank   54,91,395.00   64,32,509.00     In Term Deposit   1,14,68,168.12   1,19,40,535.26     Is CA Asutosh Mookherjee Fund   1,14,68,168.12   1,19,40,535.26     In Term Deposit   2,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1	In Bank		
Term Deposit   79,73,804.79   73,52,730.51     In Bank   76,74,997.70   91,78,125.70     1,56,48,802.49   1,65,30,856.21     House Building Advance Fund   6,40,724.44   5,92,680.74     In Bank   2,96,205.08   2,84,703.08     P,36,929.52   8,77,383.82     In Term Deposit   87,65,318.73   86,55,783.30     In Bank   21,67,557.86   15,61,261.86     In Bank   21,67,557.86   15,61,261.86     In Term Deposit   8,765,318.73   86,55,783.30     In Bank   21,67,557.86   15,61,261.86     In Term Deposit   59,76,773.12   55,08,026.26     In Bank   54,91,395.00   64,32,509.00     In Term Deposit   54,91,395.00   64,32,509.00     In Term Deposit   1,14,68,168.12   1,19,40,535.26     In Term Deposit   49,49,261.00   11,20,888.00     In Term Deposit   49,49,261.00   11,20,888.00     In Bank   49,49,261.00   11,20,888.00     In Bank   49,49,261.00   11,20,888.00     In Term Deposit   1,20,888.00     In Term Deposit   1,20,888.00     In Bank   49,49,261.00   11,20,888.00     In Term Deposit   1,20,888.00     In Term Deposit   1		6,47,08,512.61	5,62,79,791.08
Name   1,56,44,907.00   91,78,125.70   1,56,48,802.49   1,65,30,856.21   1,65,48,802.49   1,65,30,856.21   1,65,48,802.49   1,65,30,856.21   1,65,30,856.21   1,65,30,856.21   1,65,30,856.21   1,65,30,856.21   1,65,30,856.21   1,65,30,856.21   1,65,30,856.21   1,65,30,856.21   1,65,30,856.21   1,65,30,856.21   1,64,70,24.44   5,92,680.74   1,65,80,26.25   1,73,83,82		70 72 804 70	72 E2 720 E1
1,56,48,802.49   1,65,30,856.21     House Building Advance Fund	•		
House Building Advance Fund	in bank		
In Term Deposit	House Building Advance Fund	1,50,40,602.47	1,00,00,000.21
SCA Development Fund		6 40 724 44	5 92 680 74
SCA Development Fund	-		
In Term Deposit       87,65,318.73       86,55,783.30         In Bank       21,67,557.86       15,61,261.86         1,09,32,876.59       1,02,17,045.16         ISCA Leave Encashment Fund         In Term Deposit       59,76,773.12       55,08,026.26         In Bank       54,91,395.00       64,32,509.00         1,14,68,168.12       1,19,40,535.26         ISCA Asutosh Mookherjee Fund         In Term Deposit       -       -         In Bank       49,49,261.00       11,20,888.00         49,49,261.00       11,20,888.00			
In Term Deposit       87,65,318.73       86,55,783.30         In Bank       21,67,557.86       15,61,261.86         1,09,32,876.59       1,02,17,045.16         ISCA Leave Encashment Fund         In Term Deposit       59,76,773.12       55,08,026.26         In Bank       54,91,395.00       64,32,509.00         1,14,68,168.12       1,19,40,535.26         ISCA Asutosh Mookherjee Fund         In Term Deposit       -       -         In Bank       49,49,261.00       11,20,888.00         49,49,261.00       11,20,888.00			
In Bank       21,67,557.86       15,61,261.86         1,09,32,876.59       1,02,17,045.16         ISCA Leave Encashment Fund         In Term Deposit       59,76,773.12       55,08,026.26         In Bank       54,91,395.00       64,32,509.00         1,14,68,168.12       1,19,40,535.26         ISCA Asutosh Mookherjee Fund         In Term Deposit       -       -         In Bank       49,49,261.00       11,20,888.00         49,49,261.00       11,20,888.00	<del>-</del>	05 (5 040 50	04 55 500 00
ISCA Leave Encashment Fund         In Term Deposit       59,76,773.12       55,08,026.26         In Bank       54,91,395.00       64,32,509.00         ISCA Asutosh Mookherjee Fund       1,14,68,168.12       1,19,40,535.26         In Term Deposit       -       -         In Bank       49,49,261.00       11,20,888.00         49,49,261.00       11,20,888.00	•		
ISCA Leave Encashment Fund         In Term Deposit       59,76,773.12       55,08,026.26         In Bank       54,91,395.00       64,32,509.00         In J4,68,168.12       1,19,40,535.26         ISCA Asutosh Mookherjee Fund       -       -         In Term Deposit       -       -         In Bank       49,49,261.00       11,20,888.00         49,49,261.00       11,20,888.00	in Bank		
In Term Deposit     59,76,773.12     55,08,026.26       In Bank     54,91,395.00     64,32,509.00       ISCA Asutosh Mookherjee Fund       In Term Deposit     -     -       In Bank     49,49,261.00     11,20,888.00       49,49,261.00     11,20,888.00		1,09,32,676.39	1,02,17,043.16
In Term Deposit     59,76,773.12     55,08,026.26       In Bank     54,91,395.00     64,32,509.00       ISCA Asutosh Mookherjee Fund       In Term Deposit     -     -       In Bank     49,49,261.00     11,20,888.00       49,49,261.00     11,20,888.00	ISCA Leave Encashment Fund		
In Bank         54,91,395.00         64,32,509.00           1,14,68,168.12         1,19,40,535.26           ISCA Asutosh Mookherjee Fund           In Term Deposit         -         -           In Bank         49,49,261.00         11,20,888.00           49,49,261.00         11,20,888.00		59 76 773 12	55 08 026 26
ISCA Asutosh Mookherjee Fund     1,14,68,168.12     1,19,40,535.26       In Term Deposit     -     -       In Bank     49,49,261.00     11,20,888.00       49,49,261.00     11,20,888.00	•		
ISCA Asutosh Mookherjee Fund In Term Deposit In Bank 49,49,261.00 11,20,888.00 49,49,261.00 11,20,888.00			
In Term Deposit	ISCA Asutosh Mookherjee Fund		, ,,,
In Bank 49,49,261.00 11,20,888.00 49,49,261.00 11,20,888.00		-	-
49,49,261.00 11,20,888.00	-	49,49,261.00	11,20,888.00
	Total	13,01,10,453.30	

NOTE 6		
Long-Term loans and advances		
Advance - General	22,54,421.00	23,16,209.00
Advance to Staff	15,004.00	22,828.00
	-	-
		-
	22,69,425.00	23,39,037.00
NOTE 7		
Other non-current assets		
Security Deposit for High Tension Line	3,76,914.51	3,76,914.51
Security Deposit with CESC Ltd	1,000.00	1,000.00
Security Deposit for Telex	10,000.00	10,000.00
Membership Receivable	4,500.00	4,500.00
	3,92,414.51	3,92,414.51
NOTE 8	Rs	Rs
Inventories		
Stock of Printing Paper	2,69,614.77	13,58,796.25
NOTE 9		
Cash and Cash Equivalents	2 000 00	2 000 00
Cash	2,000.00	2,000.00
Savings Bank	3,62,72,087.32	2,55,07,657.07
Public Information Officer with Bank	3,478.00	3,093.00
	3,62,77,565.32	2,55,12,750.07
NOTE 10		
Short-term loans and advances		
Festival Advance	34,200.00	32,400.00
NOTE 11		
Other current assets		
Prepaid Expense	11,450.00	94,459.00
Prepaid Upgradation of Improv of Exis. Facilities	60,150.00	42,063.00
Prepaid Insurance	11,685.00	34,948.00
	83,285.00	1,71,470.00

NOTE-12  Rs  Grant from Government 5,50,00,000.00  NOTE-13  Income From Other Activities  Rs  Membership Subscription Received Less: Transfer to Reserve Fund  Add: Admission Fee Add: Transfer from Life Membership Subscription Fund  Fund	n ,000.000,000,000,000,000,000,000	Non Plan Rs	Total	Plan	Non Plan	Total
rt from Government  TE-13  Te-13  Tership Subscription Received  Transfer to Reserve Fund  Admission Fee  Transfer from Life Membership Subscription	00.000,	Rs	D			
TE-13  Te-13  Te-13  Tership Subscription Received  Transfer to Reserve Fund  Admission Fee  Transfer from Life Membership Subscription	00.000,	000000	NS.	Rs	Rs	Rs
TE-13  Come From Other Activities  The ship Subscription Received  Transfer to Reserve Fund  Admission Fee  Transfer from Life Membership Subscription	00.000,	50,000,000.00	00.000,00,00,0	5,32,34,000.00	8,10,000.00	5,40,44,000.00
TE-13  Come From Other Activities  abership Subscription Received  Transfer to Reserve Fund  Admission Fee  Transfer from Life Membership Subscription		50,00,000.00	6,00,00,00,000.00	5,32,34,000.00	8,10,000.00	5,40,44,000.00
come From Other Activities  abership Subscription Received Transfer to Reserve Fund Admission Fee Transfer from Life Membership Subscription						
nbership Subscription Received Transfer to Reserve Fund Admission Fee Transfer from Life Membership Subscription		2015-2016	016		2014-2015	2015
nbership Subscription Received Transfer to Reserve Fund Admission Fee Transfer from Life Membership Subscription	n	Non Plan	Total	Plan	Non Plan	Total
Membership Subscription Received Less: Transfer to Reserve Fund Add: Admission Fee Add:Transfer from Life Membership Subscription Fund		Rs	Rs	Rs	Rs	Rs
Less: Transfer to Reserve Fund Add: Admission Fee Add:Transfer from Life Membership Subscription Fund		23,37,682.00			25,01,793.00	
Add: Admission Fee Add:Transfer from Life Membership Subscription Fund		50,000.00		ı	50,000.00	
Add: Admission Fee Add:Transfer from Life Membership Subscription Fund		22,87,682.00			24,51,793.00	
Add:Transfer from Life Membership Subscription Fund		1,77,400.00			2,51,200.00	
Fund						
		9,23,220.00	00 000 00	•	10,93,005.00	000000
		33,88,302.00	33,88,302.00		37,95,998.00	37,95,998.00
Guest House Lodging Charges		32,200.00	32,200.00		33,500.00	33,500.00
Reimbursement of Service Charges of ISCA Lecture		80,600,00	00 009 08		1 03 900 00	1 03 900 00
Hall (Net)		20.250.50	2025.00			
Musc Income		3,023.00	3,023.00		1 (	1 6
Interest earned from computer loan	ı	ı	1	•	4,312.00	4,312.00
Sale of Publications		ı	1		250.00	550.00
Plan Sale of Tender Papers	16,000.00	ı	16,000.00	8,000.00	1	8,000.00
Journal Subscription (Non Members) 28,03	28,021.00	1	28,021.00	18,780.00	1	18,780.00
Interest Income (Accrued)						
General Fund	ı	3,801.34	3,801.34	3,487.00	1	3,487.00
Building Fund	1	49,134.60	49,134.60	47,060.98	1	47,060.98
Gratuity Fund	ı	9,65,667.28	9,65,667.28	9,35,836.00	1	9,35,836.00
House Building Advance Fund	1	59,545.70	59,545.70	56,199.71	1	56,199.71
ISCA Development Fund	1	7,15,831.43	7,15,831.43	12,28,740.15	1	12,28,740.15
Life Membership Subscription	,	50,75,124.53	50,75,124.53	41,62,072.73	1	41,62,072.73
Pension Fund	1	11,08,100.53	11,08,100.53	6,31,103.72	1	6,31,103.72
Reserve Fund	1	5,41,705.59	5,41,705.59	4,71,682.42	1	4,71,682.42
Public Information Officer Fund	ı	125.00	125.00	168.00	1	168.00
Leave Encashment Fund	1	7,11,072.86	7,11,072.86	6,63,758.85	-	6,63,758.85
	44,021.00	1,27,34,235.86	1,27,78,256.86	82,26,889.56	39,38,260.00	1,21,65,149.56
Less: Transfer to Fund (Interest Accured but not due)	1	92,30,108.86	92,30,108.86	82,00,109.56	ı	82,00,109.56
44,07	44,021.00	35,04,127.00	35,48,148.00	26,780.00	39,38,260.00	39,65,040.00

NOTE-14	Ī	2015-2016	716		2014-2015	7015
EXPENSES ON SCIENTIFIC						
ACTIVITIES & AWARD	Plan	Non Plan	Total	Plan	Non Plan	Total
	Rs	Rs	Rs	Rs	Rs	Rs
Sessional Expenses	18,634.00	ı	18,634.00	21,544.00	ı	21,544.00
Travelling Expenses	45,94,935.00	ī	45,94,935.00	49,66,374.50	ı	49,66,374.50
Sitting fee	11,35,000.00	ī	11,35,000.00	5,54,000.00	ı	5,54,000.00
ISCA Chapters	44,00,000.00	ı	44,00,000.00	7,25,212.00	ı	7,25,212.00
Seminars, Symposia, Discussion & Lectures	44,62,170.00	ı	44,62,170.00	44,75,000.00	1	44,75,000.00
Honorarium to ISCA Platinum Jubilee Lectures	1,20,000.00	ı	1,20,000.00	1,40,000.00	1	1,40,000.00
Poster Presentation Award	1,25,000.00	1	1,25,000.00	1,30,000.00	1	1,30,000.00
Cost of Gold Medals & Plaques	5,82,113.00	1	5,82,113.00	1	1	1
Membership Subscription	1	ı	1	10,000.00	1	10,000.00
Young Scientists:	Ī		1			•
Awards	2,75,000.00	ı	2,75,000.00	3,50,000.00	1	3,50,000.00
Travelling Expenses	1,85,872.00	ı	1,85,872.00	1,73,684.00	ı	1,73,684.00
Stationery	1	ı	i	5,838.00	1	5,838.00
Advertisement	45,000.00	ı	45,000.00	23,000.00	ı	23,000.00
Contingency	10,500.00	ī	10,500.00	14,000.00	ı	14,000.00
Expenses for Delegation to Meetings Abroad	38,823.00	1	38,823.00	47,246.00	1	47,246.00
Screening / evaluation of paper	80,000.00	1	80,000.00	85,000.00	ı	85,000.00
	1,60,73,047.00	1	1,60,73,047.00	1,17,20,898.50	1	1,17,20,898.50
		2015-2016	216		2014-2015	2015
NOTE-15	Plan	Non Plan	Total	Plan	Non Plan	Total
Other Expenses	Rs	Rs	Rs	Rs	Rs	Rs
Telephone Expenses	1	86,129.00	86,129.00	1	88,242.00	88,242.00
Transport Expenses	1	46,802.00	46,802.00	1	1,07,114.00	1,07,114.00
Municipal Tax	1	181.00	181.00	1	182.00	182.00
Security Guard Expenses	1	12,48,018.00	12,48,018.00	1	11,93,855.00	11,93,855.00
Audit Fees	•	34,500.00	34,500.00	1	34,200.00	34,200.00
Cleaning & Building Maintenance	ı	3,34,031.00	3,34,031.00	1	4,86,040.00	4,86,040.00
Postage & Stationery for President	2,10,000.00	1	2,10,000.00	1,00,000.00	1	1,00,000.00
Advertisement	92,460.00	1	92,460.00	30,838.00	1	30,838.00

**EXPENDITURES** 

Electricity Charges Upgradation & Improvement of Existing Facilities	6,16,985.00		6,16,985.00 3,77,634.00	5,66,908.00	1 1	5,66,908.00
General Printing	12,85,111.00	ı	12,85,111.00	13,04,790.00	1	13,04,790.00
Guest House Expenses	1	19,752.00	19,752.00	1	16,014.00	16,014.00
Insurance	ı	43,294.00	43,294.00	1	15,502.00	15,502.00
Bank Charges	ı	14,023.25	14,023.25	1	5,778.00	5,778.00
Operation and Maintenance of A.C.Plant	ı	1,06,561.00	1,06,561.00	1	1,14,611.00	1,14,611.00
Profit and loss on sale of fixed assets	ı	2,02,704.48	2,02,704.48	3,58,843.28	1	3,58,843.28
OTHER OPERATION EXPENSES					1	
Stationery Expenses	1,49,535.00	1	1,49,535.00	2,11,457.00	1	2,11,457.00
Postage	39,95,621.00	1	39,95,621.00	33,96,546.00	1	33,96,546.00
Contingencies	1,24,810.50	ı	1,24,810.50	6,41,921.50	ı	6,41,921.50
Repair & Renovation of Building	24,000.00	ı	24,000.00	10,83,535.00	1	10,83,535.00
Legal Expenses	85,497.00	1	85,497.00	1,86,966.00	1	1,86,966.00
Contingency Expenses for Meeting with Official						
Language	32,125.00	1	32,125.00	3,85,102.00		3,85,102.00
PUBLICATION EXPENSES		1			1	1
Sessional Publication	6,79,012.00	1	6,79,012.00	6,12,807.00	1	6,12,807.00
Publication of Proceedings	6,79,012.00	1	6,79,012.00	6,94,591.00	1	6,94,591.00
Publication of Journals	28,75,311.00	1	28,75,311.00	5,87,587.00	1	5,87,587.00
Cost of Printing Paper	10,89,181.48	ı	10,89,181.48	23,05,519.62	ı	23,05,519.62
	1.23.16.294.98	21,35,995,73	1.44.52.290.71	1.27.87.671.17	20.61.538.00	1.48,49,209,17
			(-/- /- /- /- /-			
		2015-2016	016		2014-2015	2015
NOTE-16	Plan	Non Plan	Total	Plan	Non Plan	Total
Employees' Benefit Expenses	Rs	Rs	Rs	Rs	Rs	Rs
Establishment	4,74,242.00	1,37,75,991.00	1,42,50,233.00	7,96,587.00	1,24,64,549.00	1,32,61,136.00
Ad-hoc Bonus	ı	00.080,69	00.080'69	1	82,321.00	82,321.00
Contribution to Staff New Pension Scheme	ı	3,72,444.00	3,72,444.00	1	3,07,798.00	3,07,798.00
Contribution to Staff Pension Fund	1	37,78,108.00	37,78,108.00	1	56,47,321.00	56,47,321.00
Leave Travel Concession	ı	2,18,115.00	2,18,115.00	1	5,75,097.00	5,75,097.00
Staff Liveries	ı	2,000.00	2,000.00	1	1,000.00	1,000.00
Re-imbursement of Children Educational		0000			1	11
Allowance		1,74,931.00	1,74,931.00	1 10	1,57,311.00	1,57,311.00
	4,74,242.00	1,83,90,669.00	1,88,64,911.00	7,96,587.00	1,92,35,397.00	2,00,31,984.00

### Reconciliation of Life Membership Subscription Fund with Investment and Bank

Life Membership Subscription Fund

Rs

Opening Balance as on 01-04-2015

Add: Subcription received during

the year 2015-2016 Add: Interest Accured during the year as detailed below 5,61,51,811.08

Rs

46,18,300.00

TDR NO	Rs	
33251159345	5,47,793.22	
33171568280	5,03,611.19	
10959318633	2,36,977.43	
10959318622	7,57,748.52	
33062685839	6,32,821.25	
34803843458	4,25,000.00	
30275144311	1,61,403.48	
32225475315	7,82,742.73	
32399434877	3,09,294.88	
32654087378	1,06,131.34	
32529725604	1,76,038.17	
34069506239	2,75,337.32	49,14,899.53

Savings Bank Interest

31/03/2016

16,022.00

16,022.00 95,49

95,49,221.53 6,57,01,032.61

9,23,220.00

6,47,77,812.61

Less: Expenditure incurred by ISCA on behalf of the Fund

Less: 20% Transferred to ISCA as Membership Income

Balance of Life Membership Fund (A)

2,200.00

6,47,75,612.61

Life Membership Investment Balance as per Last Account

Add: Interest Accured during the year

Rs

2,200.00

5,61,84,327.23

TDR No	Rs
33251159345	5,47,793.22
33171568280	5,03,611.19
10959318633	2,36,977.43
10959318622	7,57,748.52
33062685839	6,32,821.25
33529725604	1,76,038.17
34803843458	4,25,000.00
30275144311	1,61,403.48
32225475315	7,82,742.73
32399434877	3,09,294.88
32654087378	1,06,131.34
34069506239	2,75,337.32

49,14,899.53

(B) 6,10,99,226.76

Life Membership Bank A/c State Bank of India Rs Rs Opening Balance 01-04-2015 95,463.85 Add: Transfer during the year 10-03-2016 35,00,000.00 35,00,000.00 Savings Bank Interest 31/03/2016 16,022.00 35,16,022.00 36,11,485.85 Less: Payments made during the year 2,200.00 36,09,285.85 (C) A = C <u>Rs</u> Rs Rs 6,47,75,612.61 6,10,99,226.76 36,09,285.85 Difference to be transferred in current year (67,100.00)

Less: Excess Transferred Last year adjusted

1,27,980.00 (60,880.00)

### Note - 17

### **Significant Accounting Policies:**

- 1. The accounts are prepared on Historical cost basis under going concern concept.
- 2. Income from Subscription, Government Grant and Interest on Investments are accounted for on accrual basis.
- 3. Subscriptions received for the month of February and March are taken as Pre-receipted subscription for the following year.
- 4. 20% of Life Membership subscription is treated as income in the year of receipt and balance 80% is kept in Life Membership Subscription Fund Account as per decision of the Finance Committee at its meeting held on 21.09.2013 followed by the approval of the Executive Committee meeting dated 04.10.2013
- 5. Transfer of Rs. 50,000 instead of Rs.25,000 to Reserve Fund Account from General Fund Account as per decision of Finance Committee at its meeting held on 21.09.2013 followed by the approval of the Executive Committee meeting held on 04.10.2013.
- 6. Fixed Assets in the Balance Sheet are taken at cost less depreciation provided w.e.f. 2006-07 except "Plan Subscription of Journal" which is shown in the Balance Sheet at cost less depreciation as effective from 2010-11. Thus, arrears of depreciation on Fixed Assets (other than "Plan Subscription of Journal") up to 31.03.2006 are reduced from the cost of Fixed Assets to arrive at w.d.v. for computation of depreciation on fixed asset for the current year at the rate prescribed by The Income Tax Act. 1961. In case of "Plan Subscription of Journal", arrears of depreciation up to 31.03.2010 are reduced from the cost to arrive at w.d.v. for computation of depreciation.
- 7. In absence of any guidelines from the funding authorities, the bifurcation of expenses between Plan and Non-Plan Account is done on the basis of perception of the management.
- 8. Investment in Term Deposit other than Endowment are stated at carrying cost and accured interest on term deposits are taken into the Fund Account. However, at the time of maturity of Term Deposits invested out of General Fund, the total interest accured thereon is credited to Income and Expenditure Account by transferring from General Fund Account. (Vide Note No 13).
  - The Investments are mostly made for the period of 39 months since the interest for this period yields maximum rate of interest.
- 9. Interest on Investment in Term Deposit in Endowment Fund is accounted for in cash basis.
- 10. Guest House lodging charges and service charges for ISCA Lecture Hall has been accounted for in cash basis during the year.

### Note - 18 **Notes on Accounts:**

- 1. Gratuity Provision has not been made for the year ended 31.03.2016. Actuarial valuation is carried out to determine the liability on account of Gratuity as at 31.03.2016 and Liability as on per Valuation is Rs.53.60 lacs. (Excess Provision already made in the earlier years to the extent of Rs.102.88 lacs)
- 2. Leave Encashment Provision has not been made for the year ended 31.03.2016. Actuarial valuation is carried out to determine the liability on account of Leave Encashment as at 31.03.2016 and the Liability as per Valuation is Rs.47.57 lacs. (Excess Provision already made in the earlier years to the extent of Rs.67.11 lacs)
- 3. Pension Provision has not been made for the year ended 31.03.2016. Actuarial valuation is carried out to determine the liability on account of Pension as at 31.03.2016 and the Liability as per Valuation as at 31.03.2016 is Rs.362.98 lacs leaving an uncovered liability to the extent of Rs.212.72 lacs
- 4. "Plan subscription of Journal" although capitalized in 2008-09, no depreciation has been charged till 31.03.2010. However, during the current year Rs. 5,237.30 has been charged as depreciation in Income & Expenditure Account.
- 5. As practiced since 1991-92, with reference to Accounting Policy of ISCA (Para 2.3)Rs. 36,95,280/- being 80% of Life Membership subscription received during the current year has been retained in Life Membership Subscription Fund. A statement of Reconciliation of Life Membership Subscription Fund and Investment thereof till 31.03.2016 given in subschedule no. IA.
- 6. The basis of allocation of Non Recurring Fund Grant transferred to Plan Building Fund (NOTE -1) is as per the actual expenditure incurred on account of Building under Construction (NOTE -4). The residual amount is transferred to Grant Fund (NOTE -1A)
- 7. The Plan and Non Plan Grant is received from DST under i) General, ii)Salary and iii) Capital without specifying sub heads. However, the reconciliation of the 3 major heads is mentioned above is made. The Association also submits the Utilization Certificate to DST on Quarterly basis.
- 8. Old Deposits and Liabilities will be reviewed periodically and necessary action for disposal will be taken as and when required.
- 9. Capital-Work in Progress for Rs.52,943.00 for construction of centenary building lying since 2012-2013 and will be adjusted in 2016-2017.

- 10. Income Tax Deducted at Source from Interest on Term Deposits with the Banks has not been accounted for due to non availability of required details from the Bank. The matter has been taken up with the Bank and necessary action will be taken on availability of proper documents.
- 11. Cheques Amounting to Rs.1,22,500/- shown under Bank Account should have been shown as Cheques in Hand.
- 12. Contingent Liability for the Income Tax Demand of Rs.1,81,46,810/- (Assessment Year 2012-2013.Rs.32,40,200/- and Assessment Year 2013-2014..Rs.1,49,06,610/-) which are under appeal have not been provided.
- 13. Figures of the previous year have been re-grouped and re-arranged where necessary to make them comparable with the figures of the current year.

For S.K.Bhattachariya & Co Chartered Accountants FRN 301081E

Shyanal Rumar Muscherja.

(CA.S.K.Mukharjee) Partner

Membership No 017607

Place:Kolkata Date : 20/09/2016 Gangadhar General Secretary (Membership Affairs) Ranjit Kumar Verma

The Indian Science Congress Association

### BALANCE SHEET OF ENDOWMENT FUNDS AS AT 31ST MARCH,2016

Particulars		Note	Current Year Rs	Previous Year Rs
LIABILITIES				
Endowment Fund Balance		19	2,62,18,237.70	2,43,75,057.70
	Total:		2,62,18,237.70	2,43,75,057.70
PROPERTIES & ASSETS Endowment Investments	Total:	20	2,62,18,237.70 2,62,18,237.70	2,43,75,057.70 2,43,75,057.70

In terms of our report of even date annexed hereto.

Gangadhar
General Secretary (Membership Affairs)

Ranjit Kumar Verma Treasurer

Rueseme

For S.K.Bhattachariya & Co Chartered Accountants FRN 301081E

(C.A. S.K.Mukharjee)

Shyamal Kumar Muscherja.

**Partner** 

Membership No 017607

Place: Kolkata

### INCOME & EXPENDITURE ACCOUNT OF ENDOWMENT FUND FOR THE YEAR ENDED 31ST MARCH,2016

Particulars	Note	<b>Current Year</b>	Previous Year
		Rs	Rs
<u>Income</u>	21	22,93,574	17,50,022
		22,93,574	17,50,022
Expenditure	21	9,50,394	2,73,997
		9,50,394	2,73,997
Excess of Income	e Over Expenditure	13,43,180	14,76,025
Less: Transferred	I to Respective Fund	13,43,180	14,76,025

In terms of our report of even date annexed hereto.

Gangadhar

**General Secretary (Membership Affairs)** 

Ranjit Kumar Verma

Treasurer

For S.K.Bhattachariya & Co Chartered Accountants FRN 301081E

Place: Kolkata

Date: 20/09/2016

(C.A. S.K.Mukharjee)

Shyonal Kumar Muxherja.

Partner

Membership No 017607

lote 19

ENDOWMENT FUND BALANCES				
Particulars	Balance as on 1-04-2015	Surplus(+)/ Deficit(-) of	Donation Received	Balance as on
		Respective Fund		31-03-2016
	Rs	Rs	Rs	Rs
1 B.C.Guha Memorial Fund	1,84,649.39	(13,988.00)	1	1,70,661.39
2 G.P.Chatterjee & Smt Suniti Chatterjee Fund	7,31,830.25	45,437.00		7,77,267.25
3 Prof Hiralal Chakraborty & Smt Toru Chakraborty	3,32,386.60	18,898.00		3,51,284.60
4 Prof K.P. Rode Memorial Lecture Fund	1,67,078.66	1,124.00	1	1,68,202.66
5 Pran Vohra Award Fund	6,50,764.13	16,642.00		6,67,406.13
6 Raj Kristo Dutta Memorial Award Fund	1,71,535.00	(486.00)	•	1,71,049.00
7 Prof Uma Kant Sinha Memorial Award Fund	3,23,470.81	14,964.00		3,38,434.81
8 Dr B.C.deb Memorial Award Fund	6,06,367.39	28,794.00	•	6,35,161.39
9 Prof R.C. Saha Memorial Award Fund	1,79,553.42	6,286.00	•	1,85,839.42
10 Prof R.C. Mehrotra Commemoration Award Fund	2,74,993.74	20,130.00	1	2,95,123.74
11 Prof S.K.Mukherjee Commemoration Award Fund	2,88,576.45	7,066.00	•	2,95,642.45
12 Prof (Mrs) Anima Sen Memorial Award Fund	1,85,699.00	11,947.00		1,97,646.00
13 Dr (Mrs) Gouri Ganguly Award Fund	3,24,587.15	15,788.00		3,40,375.15
14 Prof S.S.Katiyar Commemoration Lecture Fund	6,58,968.00	12,694.00	•	6,71,662.00
15 ISCA Ward Fund	82,23,717.66	5,61,020.00	1	87,84,737.66
16 ICSA Vikram Sarabhai Memorial Award Fund	12,54,274.29	77,646.00	1	13,31,920.29
17 ISCA Excellence in Science & Technologyl Award Fund	29,89,277.00	2,17,064.00	1	32,06,341.00
18 ISCA Royalty Fund	6,36,745.50	39,748.00	1	6,76,493.50
19 ISCA Infosis Foundation Travel Award Fund	7,72,092.26	1,378.00		7,73,470.26
20 Prof R.C.Mehrotra Memorial Life Time Achivement Award Fund	24,06,999.00	1,57,914.00		25,64,913.00
21 Prof M.K.Singal Memorial Award Fund	11,65,027.00	1,558.00	1	11,66,585.00
22 Prof Archana Sharma Memorial Award Fund	5,85,631.00	33,681.00	1	6,19,312.00
23 Prof G.K.Manna Memorial Award Fund	6,45,593.00	38,255.00	1	6,83,848.00
24 Prof V.K.Puri Memorial Award Fund	6,15,241.00	26,380.00	1	6,41,621.00
25 Prof W.D.West Memorial Award	•	3,240.00	5,00,000.00	5,03,240.00
	2,43,75,057.70	13,43,180.00	5,00,000.00	2,62,18,237.70

Vote 20

ENDOWMENT FUND INVESTMENTS				
Particulars		2015-2016		2014-2015
	In Term	п	Total	
	Deposit	Bank		
	Rs	Rs	Rs	Rs
1 B.C.Guha Memorial Fund	1,25,000.00	45,661.39	1,70,661.39	1,84,649.39
2 G.P.Chatterjee & Smt Suniti Chatterjee Fund	4,20,000.00	3,57,267.25	7,77,267.25	7,31,830.25
3 Prof Hiralal Chakraborty & Smt Toru Chakraborty	2,25,000.00	1,26,284.60	3,51,284.60	3,32,386.60
4 Prof K.P. Rode Memorial Lecture Fund	95,000.00	73,202.66	1,68,202.66	1,67,078.66
5 Pran Vohra Award Fund	4,25,000.00	2,42,406.13	6,67,406.13	6,50,764.13
6 Raj Kristo Dutta Memorial Award Fund	1,00,000.00	71,049.00	1,71,049.00	1,71,535.00
7 Prof Uma Kant Sinha Memorial Award Fund	1,85,000.00	1,53,434.81	3,38,434.81	3,23,470.81
8 Dr B.C.Deb Memorial Award Fund	3,79,955.00	2,55,206.39	6,35,161.39	6,06,367.39
9 Prof R.C. Saha Memorial Award Fund	1,20,000.00	65,839.42	1,85,839.42	1,79,553.42
10 Prof R.C. Mehrotra Commemoration Award Fund	2,30,000.00	65,123.74	2,95,123.74	2,74,993.74
11 Prof S.K.Mukherjee Commemoration Award Fund	1,50,000.00	1,45,642.45	2,95,642.45	2,88,576.45
12 Prof (Mrs) Anima Sen Memorial Award Fund	1,00,000.00	97,646.00	1,97,646.00	1,85,699.00
13 Dr (Mrs) Gouri Ganguly Award Fund	2,00,000.00	1,40,375.15	3,40,375.15	3,24,587.15
14 Prof S.S.Katiyar Commemoration Lecture Fund	5,00,000.00	1,71,662.00	6,71,662.00	6,58,968.00
15 ISCA Award Fund	64,00,000.00	23,84,737.66	87,84,737.66	82,23,717.66
16 ISCA Vikram Sarabhai Memorial Award Fund	8,00,000.00	5,31,920.29	13,31,920.29	12,54,274.29
17 ISCA Excellence in Science & Technologyl Award Fund	20,00,000.00	12,06,341.00	32,06,341.00	29,89,277.00
18 ISCA Royalty Fund	3,00,000.00	3,76,493.50	6,76,493.50	6,36,745.50
19 ISCA Infosis Foundation Travel Award Fund	5,00,000.00	2,73,470.26	7,73,470.26	7,72,092.26
20 Prof R.C.Mehrotra Memorial Life Time Achivement Award Fund	15,00,000.00	10,64,913.00	25,64,913.00	24,06,999.00
21 Prof M.K.Singal Memorial Award Fund	10,00,000.00	1,66,585.00	11,66,585.00	11,65,027.00
22 Prof Archana Sharma Memorial Award Fund	5,00,000.00	1,19,312.00	6,19,312.00	5,85,631.00
23 Prof G.K.Manna Memorial Award Fund	5,00,000.00	1,83,848.00	6,83,848.00	6,45,593.00
24 Prof V.K.Puri Memorial Award Fund	5,00,000.00	1,41,621.00	6,41,621.00	6,15,241.00
25 Prof W.D.West Memorial Award	5,00,000.00	3,240.00	5,03,240.00	•
	1,77,54,955.00	84,63,282.70	2,62,18,237.70	2,43,75,057.70

Transferred to 38,289 23,416 44,445 10,538 (56,657)12,819 10,703 33,380 11,093 13,764 88,065 13,151 11,483 20,294 7,992 2,06,309 38,794 1,66,191 58,933 11,007 42,577 5,86,453 14,76,025 Surplus (+)/ Respective Deficit(-) Fund 1,635 41,232 1,550 81,095 5,000 20,000 10,000 8,100 1,550 81,095 2,73,997 Expenditure 2014-2015 23,416 2,06,309 ,66,276 10,703 44,445 38,879 54,996 17,50,022 18,151 11,568 88,065 11,092 21,303 41,480 12,643 24,438 21,844 44,212 6,06,453 89,087 Income 18,898 (486)(13,988) 1,124 16,642 14,964 6,286 20,130 7,066 Transferred to 45,437 28,794 5,61,020 77,646 2,17,064 1,378 13,43,180 15,788 12,694 39,748 ,57,914 11,947 1,558 Surplus (+)/ Respective Deficit(-) Fund Rs Expenditure 1,815 4,000 26,890 6,815 5,000 83,159 23,938 11,900 5,690 13,630 10,370 82 36,563 63,630 9,608 9,50,394 5,28,831 2015-2016 1,57,999 2,17,064 58,499 84,717 22,898 17,436 12,032 20,788 39,833 45,496 50,318 47,252 11,209 43,532 20,130 49,257 87,254 11,414 20,654 42,424 13,101 3,24,650 5,32,071 22,93,574 Income Prof R.C.Mehrotra Memorial Life Time Achivement Award Fund 17 ISCA Excellence in Science & Technologyl Award Fund Prof S.K.Mukherjee Commemoration Award Fund 10 Prof R.C. Mehrotra Commemoration Award Fund 3 Prof Hiralal Chakraborty & Smt Toru Chakraborty Prof S.S.Katiyar Commemoration Lecture Fund 16 ISCA Vikram Sarabhai Memorial Award Fund 2 G.P.Chatterjee & Smt Suniti Chatterjee Fund 12 Prof (Mrs) Anima Sen Memorial Award Fund Prof Archana Sharma Memorial Award Fund 7 Prof Uma Kant Sinha Memorial Award Fund 19 ISCA Infosis Foundation Travel Award Fund 4 Prof K.P. Rode Memorial Lecture Fund Raj Kristo Dutta Memorial Award Fund Prof M.K.Singal Memorial Award Fund Prof G.K.Manna Memorial Award Fund Prof R.C. Saha Memorial Award Fund Prof W.D.West Memorial Award Fund 13 Dr (Mrs) Gouri Ganguly Award Fund Prof V.K.Puri Memorial Award Fund Dr B.C.deb Memorial Award Fund B.C.Guha Memorial Fund 5 Pran Vohra Award Fund 18 ISCA Royalty Fund 15 ISCA Award Fund = 20 တ 4

Note 21