



INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

JADAVPUR, KOLKATA 700032

Deemed to be University under de novo category under Section 3 of the University Grants Commission (UGC) Act, 1956 vide Notification No. F.9-7/2017-U.3 (A) of the Central Government.

Phone No. 91-33-2473-4971

Website : www.iacs.res.in

1.11/AGM/2022/1019

October 14, 2022

To : All Members/Fellows of the Association

Dear Sir/Madam,

In continuation of the Office Notice No. 1.11/AGM/2022/923 dated September 13, 2022, I am advised to convey that the following Agenda Items have been prepared to be taken up for discussion in the Annual General Meeting of the Association scheduled to be held on Tuesday, the 1st November, 2022 at 12.00 Noon and adjourned meeting, if required, on Wednesday, the 2nd November, 2022 at 10.30 a.m. via Google Meet. Members are requested to create and/or inform their Gmail addresses by email to registrar.iacs@gmail.com latest by 27th October, 2022. Observations/issues, if any, in this regard must reach the undersigned by email to registrar@iacs.res.in, latest by 4.30 p.m. on Thursday, the 27th October, 2022, after which no communications received will be entertained. It is pertinent to mention that the Governing Council has already advised to make all communications and correspondences via email only. For any technical assistance, you may contact at the Mobile No. 81 78736979 or 9051350951 or write email to admasd@iacs.res.in/ccresrc@iacs.res.in.

You are requested to make it convenient to attend the online meeting by making your own arrangement at your convenient place.

It may be mentioned that no notice of motion has been received from any member.

Yours faithfully,

(Sarbani Saha)
Registrar

A G E N D A

Item no. 1 : Confirmation of the minutes of the Annual General Meeting held on 21st August, 2020 and adjourned meeting held on 22nd August, 2020 via Google-Meet. (Copy of the Minutes is being circulated as Annexure - I)

Item No.-2: Report of the Action Taken on the Resolutions of the Annual General Meeting held on 22nd August, 2020.

Due to lack of quorum, the meeting scheduled on 21.08.2020 was adjourned and re-scheduled on 22nd August, 2020 at 2.30 p.m. via Google-Meet.

Following actions were taken on the resolutions of the Annual General Meeting held on 22nd August, 2020.

Item No.	Matter	Brief notes on the action taken
1.	Confirmation of the minutes of the Annual General Meeting held on 11 th February, 2019 and adjourned meeting held on 12 th February, 2019.	Since there was no comment, the minutes were confirmed.
2.	Report of Action Taken on the resolutions of the Annual General Meeting held on 12 th February, 2019	As there was no comment, the Action Taken Report of the Annual General Meeting held on 12 th February, 2019 was confirmed.
3.	Consideration of the Annual Report for the year 2017-'18 as approved by the Governing Council at its meeting held on 14.09.2018.	The Annual Report for the year 2017-'18 was considered and approved by the General Body.
4.	Consideration of the Budget Estimate for the year 2018-'19.	The Budget Estimate for the year 2018-'19 was unanimously approved.
5.	Consideration of the Audited Statement of Accounts of the Association for the year 2017-'18.	As no comment was received from any member, the Audited Statement of Accounts of the Association for the year 2017-'18 as incorporated in the Annual Report was unanimously approved.
6.	To announce the names of the Office Bearers and Members, nominated and elected, of the full Council for the next term.	The names of the full Council, as follows, for the next term were recorded. i) Professor Man Mohan Sharma, FRS (Chairman) Nominated by the Department of Science & Technology, Government of India ii) Professor Man Mohan Sharma, FRS, President, IACS (Ex-Officio Member) iii) Secretary to the Government of India, Department of Science & Technology or his nominee (Ex-Officio Member) iv) Financial Advisor, Government of India, Department of Science & Technology, or his nominee (Ex-Officio Member) v) Director, IACS (Secretary General) vi) Professor Kare Narain Pathak

Item No.	Matter	Brief notes on the action taken
		vii) Professor Amit Basak (Nominated by the Government of India, Department of Science & Technology, for three terms) viii) Professor Mahan MJ ix) Professor Sudhir K Jain (Nominated by the Governing Council of IACS for three terms) x) Professor Lingadahalli Subrahmanya Shashidhara (Nominated by the INSA for three terms) xi) Professor Arindam Banerjee (Elected from amongst Academic Staff for one term) xii) Shri S N Bose, Engineer - I, Administration, IACS (Elected from amongst Administrative and Technical Staff for one term) xii) Shri Navendu Paul (Elected from amongst Research Fellows and associates for one term) xiii) The Registrar (Non-Member Secretary).
7.	Any other matters that may be taken up with the permission of the Chair	No matter was brought forward.

Item No. 3 : Ratification of the Nomination of Prof. V K Singh by the Governing Council as the President of IACS

Item No. 4 : Consideration of the Annual Report for the year 2018-'19 (link at <http://iacs.res.in/waterways/admin/ckeditor/ckfinder/userfiles/files/IACS-AR-2018-19-final.pdf>) as approved by the Council in its meeting held on 28.08.2019 (A summary of the summary report is enclosed as Annexure II)

Item No. 5 : Consideration of the Budget Estimate for the year 2019-'20 (link at <http://iacs.res.in/waterways/admin/ckeditor/ckfinder/userfiles/files/IACS-AR-2018-19-final.pdf>) as recommended by the Council in its meeting held on 28.08.2019. (A copy of the 'Budget at a Glance' is enclosed as Annexure III)

Item No. 6 : Consideration of the Audited Statement of Accounts of the Association for the year 2018- '19 (Audited Statement of Accounts is incorporated in the Annual Report at Page Nos. 210 - 223) A copy of the Audited Statement of Accounts are enclosed as Annexure - IV).

Item No. 7 : Announcement of the names of the Office Bearers and members, nominated and elected, of the full Council for the next term (According to the Regulation 7, the period from one Annual General Meeting to the next shall be counted as one term)

Item No. 8 : It may be noted that in accordance with the revised Regulation 11.1, the Governing Council at its meeting held on 24th February, 2017 recommended the name of Professor M M Sharma, FRS as the Council Nominee for the post of President of the Association for the second term. It may further be noted that the Management Committee as per the revised Regulation 11.1 for the three terms (the period between one Annual General Meeting to the next shall be counted as One Term) with the following composition has been formed by the General Body in its Annual General Meeting held on 1st July, 2016.

Vice President(Two Positions) : Director, IACS, Vice President(Ex-Officio)

Professor Alok Kumar Mukherjee

Hony. Secretary(One Position) : Professor Amitava Dutta

Hony. Treasurer(One Position) : Professor Sanjib Ghosh

Member, Management Committee: Professor Dhiranjan Roy
(Six Positions) Professor Indrani Bose
Professor Debasish Bhattacharya
Professor Subir Ghosh
Dr. Bhupati Chakraborty
Dr. Chinmoy Kumar Ghosh

Item No. 9 : Any other matters with the permission of the Chair.

(i) It may be noted that the Governing Council at its meeting held on 22nd October, 2020 inducted Prof. Bhupati Chakraborty as the Trustee Member, Prof. Chakraborty will represent the Finance Committee as Trustee.

(ii) In the last Annual General Meeting held on 22.08.2020, it was reported that as per Regulation 6 of IACS Regulations, the Governing Council passed motion of removal of Prof. Paritosh Chakraborty and Dr. Dilip Kumar Modak from the Life Membership of the Association. This is placed for reporting.

Item No. 10 : Any other item brought with the prior permission of the Chairman.



Registrar



INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE
JADAVPUR, KOLKATA 700032

Minutes of the Annual General Body Meeting of IACS held on 21st August, 2020 at 3.30 p.m. via Google-Meet owing to Covid – 19 pandemic.

Members Present on 21st August, 2020

Prof. Mon Mohan Sharma, FRS, President, in the Chair

1.	Prof. Man Mohan Sharma, FRS	2.	Prof. Santanu Bhattacharya
3.	Prof. Aswini Ghosh	4.	Prof. A K Nani
5.	Shri Abhijit Dasgupta	6.	Shri Arup Kumar Bandyopadhyay
7.	Dr. Manash Kumar Ghosh	8.	Shri Arun Dutta
9.	Shri Abhijit Basak	10.	Smt. Sarbani Saha
11.	Dr. Swapan Deoghuria	12.	Shri Amit K Majumdar
13.	Dr. Uday Das	14.	Dr. Amit Kumar Panigrahi
15.	Shri C K Das	16.	Prof. Tapan Ganguly

Professor Santanu Bhattacharya, Director, IACS & Ex-Officio Vice President, IACS General Body, initiated the proceedings of the meeting welcoming the members via Google-Meet and informed that Notice No. 1.11/AGM/2019 dated February 26, 2020 was served to all members by Speed Post and newspaper insertion for holding Annual General Body Meeting of the Association at 11.00 a.m. on 16th April, 2020 and adjourned meeting, if required, on the same date (16.04.2020) at 4.30 p.m. in the MLS Hall of the Association at Jadavpur, Kolkata 700032. Notice of motion, if any, was also invited from members by the above notice. Subsequently, vide Notice No. 1.11/AGM/2019 dated March 4, 2020, the Adjourned Meeting, if required, was re-scheduled to be held at 4.30 p.m. on 17th April, 2020 at the same venue. This was notified by making newspaper insertion and posting on IACS Website – www.iacs.res.in.

Due to the nationwide lockdown for Covid – 19 pandemic, the Annual General Meeting had to be postponed after due online notification. However, Annual General Meeting has been re-scheduled again to be held online on 21st August, 2020 at 3.30 p.m. and the Adjourned Meeting, if any, to be held on 22nd August, 2020 at 2.30 p.m. via Google-Meet, maintaining all necessary advisories issued by the Competent Authority for ongoing pandemic for Covid -19. Accordingly, members were requested to create and/or inform their Gmail address by e-mail to registrar.iacs@gmail.com latest within 19th August, 2020. Members were requested to e-mail their observation/issues, if any, in this regard to registrar@iacs.res.in by 19th August, 2020. In this connection, it was pertinent to mention that the

Governing Council has already advised to make all communications and correspondences via e-mail only.

With this brief background on holding the Annual General Meeting via Google-Meet, Prof. Santanu Bhattacharya, Director, IACS & Ex-Officio Vice President, IACS General Body, Welcome Professor Mon Mohan Sharma, FRS, President, IACS General Body and Chairman, IACS Governing Council and members. Professor Bhattacharya said that since the attendance of the requisite number of members to form a quorum (i.e., a minimum of 439) could not be attained, the meeting was declared adjourned. It was then announced that the adjourned meeting would be held on Saturday, the 22nd August, 2020 via Google-Meet.

Members Present on 22nd August, 2020

Professor Man Mohan Sharma, FRS, President, in the Chair

1.	Prof. Man Mohan Sharma, FRS	2.	Prof. Santanu Bhattacharya
3.	Prof. Sudip Malik	4.	Shri Abhijit Basak
5.	Dr. Manash Kumar Ghosh	6.	Smt. Sarbani Saha
7.	Indranil Bhattacharya	8.	Shri Supriya Chakraborty
9.	Prof. Aswini Ghosh	10.	Smt. Rima Ganguly
11.	Dr. Bhupati Chakraborty	12.	Dr. Swapan Deoghuria
13.	Shri Partha Mitra	14.	Prof. Tapan Ganguly
15.	Shri Basudeb Dafadar	16.	Shri Subrata Das
17.	Shri Abhijit Dasgupta	18.	Dr. Jishnu Naskar
19.	Dr. Uday Das	20.	Prof. N R Jana
21.	Shri Arun Dutta	22.	Prof. Subodh Kumar De
23.	Dr. Dipankar Ghosh	24.	Prof. Rupa Mukhopadhyay
25.	Shri Amit K Majumdar		

Welcoming Professor Man Mohan Sharma, FRS, President of the IACS General Body and Chairman, IACS Governing Council and valued members of the General Body, Professor Santanu Bhattacharya, Director, IACS & Ex-Officio Vice President, IACS General Body, invited Professor Sharma to chair the virtual meeting, 1st time in his history of IACS. Prof. Sharma while welcoming all, called the meeting to order. He requested Professor Santanu Bhattacharya to proceed as per Agenda Items.

Before proceeding, Prof. Bhattacharya requested all who attended the meeting via Google-Meet to observe one minute silence to pay respectful homage to departed soul Prof. S K Joshi, Past President, IACS General Body and Chairman, IACS Governing Council, and other members who passed away in the intervening period.

Before taking up Agenda Items, Professor Bhattacharya read out the Awards and accolades received by the faculty members and research fellows for the year 2017-'18, as follows and as furnished in the Annual Report, already posted in IACS Website.

Faculty Members

a) Dr. Arnab Sen received INSA Medal for Young Scientist.

b) Dr. Debashree Ghosh, Humboldt experienced research fellowship; Carl Frederich von Siemens Fellowship; Member of

Editorial Board of International Journal of Quantum Chemistry (Wiley), by Invitation.

c) Prof. Durga Basak received MRSI Medal.

d) Prof. Parthasarathi Dastidar awarded Fellow of the Indian Academy of Sciences (FASc), Bangalore.

e) Prof. Sreebrata Goswami along with scientists in Singapore have jointly developed a new type of memory device that

promises to overcome limitations of current digital storage and data processing systems as well as bolster progress

towards artificial intelligence.

f) Prof. Suhrit Ghosh received CRSI Bronze Medal.

g) Prof. Tapan Kanti Paine became Member of Editorial Advisory Board of Inorganic Chemistry.

h) Prof. Tanusri Saha-Dasgupta received Dr. APJ Kalam HPC Award, 2018; Member of Nano-mission Apex Committee, DST;

Member of Scientific Council of Indo-French Centre for the Promotion of Advanced Research.

i) Prof. Satrajit Adhikari received CRSI Bronze Medal.

Research Fellows

j) Abhijit Bera awarded Asutosh Mukherjee Best Thesis Award, IACS.

k) Arijit Ghosh awarded Best Poster Award, FIMB, IISER-Kolkata; ILS, Bhubaneswar and IABS, IACS, Kolkata.

l) Amrita Sikdar awarded Best Poster Award, SCBFM-2018, IISER-Kolkata.

m) Goutam Ghosh awarded best Poster Award, SCBFM-2018, IISER-Kolkata.

n) Jayanta Kundu awarded Best Poster Award in Clinical Sciences and Patients based Research Category, AAPI Global

Healthcare Summit.

o) Lakmikanta Karmakar awarded Best Oral Award in ICN:3I-2017, IIT Roorkee

p) Mandira Nandi awarded RSC Advances Poster Prize, Conference on MTIC.

q) Nibedita Nandi awarded Best Poster Award for ChemComm Poster Presentation, CBS

r) Pronay Makal awarded Best Poster Award in ICN:3I-2017, IIT Roorkee

s) Rajesh Bera awarded MRSI Young Scientist Award (Oral Presentation), IIFS, Shibpur

t) Sandip Munshi awarded ACS OMEGA Best Poster Award, Conference on MTIC

u) Sk Amanullah awarded ACS OMEGA Best Poster Award, Conference on MTIC

v) Soumyo Chatterjee awarded JSPS-Hope Fellow, Japan Society for the Promotion of Science; Newton-Bhabha Ph.D. Placement 2017-18, British Council DST, GOI.

w) Sudipto Bera awarded Nanoscale Horizons (RSC) Poster Award, Bengaluru

x) Surajit Bose awarded Best oral paper presenter award at URSI GASS, Montreal, Canada

y) Sumanta Chakraborty awarded W Narlikar Best Thesis Award, IAGRG, India

z) Tamal Kanti Ghosh awarded Best Poster Award, Conference on MTIC.

No. of Publications: 439, Ph.D. Degree Awarded : 39, Patent Awarded : 1, Patent Filed : 11.

President put on record hearty congratulations to all the awardees.

Reporting Items :

Professor Santanu Bhattacharua. Director, IACS and Ex-Officio Vice President, IACS General Body, reported the following:-

a) Removal of Members: Director reported that following IACS Regulation 6.iii) the Governing Council passed motion of removal of Prof. Paritosh Chakraborty and Dr. Dilip Kumar Modak from the Life Membership of the Association.

b) Acquiring Deemed to be University Status: Director informed that after vigorous persuasion with the all concerned authorities, IACS achieved Deemed to be University under de novo category under Section 3 of the University Grants Commission Act, 1956 vide Notification No. F.9-7/2017-U.3 (A) of the Central Government. Director placed on record hearty thanks and gratitude to the President and Members of the IACS General Body and all concerned to achieve the Deemed to be University status.

c) Memorandum of Understanding as Deemed to be University, as provided by DST, Government of India, will be placed before the next Governing Council, as statutory obligation on the part of IACS.

d) 1st Batch of MS students of IACS Deemed to be University came out successfully with flying colours. IACS proposed to hold its 1st Convocation on 29th July, 2020, the auspicious Foundation Day of IACS. However, due to Covid -19 Pandemic, IACS had to defer the Convocation for the time being. However, IACS is planning to hold 1st Convocation gorgeously when normalcy prevails.

e) Computer Database of Life Members of IACS General Body has been generated.

f) Library premises have been renovated making special area for Life Members.

With the above, Professor Santanu Bhattacharya, Director, IACS and Ex-Officio Vice President, IACS General Body, took up the Agenda Items for discussion in seriatim with the permission of the Chair.

Item No. 1: Confirmation of the minutes of the Annual General Meeting held on 11th February, 2019 and Adjourned Meeting held on 12th February, 2019. (Minutes posted along with Agenda Notes as Annexure – I)

Since no comment was received, the Minutes of the Annual General Meeting held on 11th February, 2019 and the Adjourned Meeting held on 12th February, 2019 were confirmed.

Item No. 2: Report of the Action Taken on the Resolutions of the Annual General Meeting held on 12th February, 2019. (Action Taken Report was incorporated in the Agenda Notes).

Director sought opinion from members present but as there was no comment received, the Action Taken Report on the Resolution of the Annual General Meeting held on 12th February, 2019 was confirmed.

Item No. 3: Consideration of the Annual Report for the year 2017-'18 as approved by the Council in its meeting held on 14.09.2018

Annual Report for the year 2017-'18, posted at the IACS Webpage at the link <http://iacs.res.in/waterways/admin/cheditor/ckfinder/userfiles/files/Final%20PDF%20AR%20English%201718.pdf> was considered and approved by the General Body.

Item No. 4: Consideration of the Budget Estimate for the year 2018-'19 as recommended by the Governing Council in its meeting held on 13.09.2018

Copy of the "Budget at a Glance" was made available and the Budget Estimate was approved by the General Body.

Item No. 5: Consideration of the Audited Statement of Accounts of the Association for the Year 2017-18.

Audited Statement of Accounts as incorporated in the Annual Report at Page Nos. 212-225, which is available at the link

<http://iacs.res.in/waterways/admin/ckeditor/ckfinder/userfiles/files/Final%20PDF%20AR%20English%201718.pdf> was placed before the General Body.

As no comment was received, the Audited Statement of Accounts of the Association for the year 2017-'18 as incorporated in the Annual Report was unanimously approved.

Item No. 6 : Announcement of the names of the Office Bearers and Members, nominated and elected, of the full Council for the next term (according to the Regulation 7, the period from one Annual General Meeting to the next shall be counted as one term.

Professor Santanu Bhattacharya, Director, IACS and Ex-Officio Vice President, IACS General Body, informed that IACS could not process election for selection by ballot representatives as per the extant IACS Regulations 9.ii), iii) & iv) for Representative of the Academic Staff, Representative of the Administrative and Technical Staff and Representative of the Research Fellows and Associates respectively due to Covid -19 Pandemic. Legal advice has since been obtained in this respect for formation of full Council for the next term. Accordingly, the existing incumbents in their respective positions for Regulation 9.ii), iii) & iv) would continue to be the Protem Members. As and when the situation normalizes, on the advice of the Governing Council, election process will start to elect members for the above positions. Accordingly, Professor Bhattacharya announced the names of the Office Bearers and Members, nominated and elected, of the full Council for the next term, keeping in view of the above. As and when Governing Council permits, election would be conducted for electing representatives under Regulation 9.ii), iii) & iv) and final result will be announced in a Special General Body Meeting.

i) Professor Man Mohan Sharma, FRS (Chairman)

Nominated by the Department of Science & Technology, Government of India

ii) Professor Man Mohan Sharma, FRS, President, IACS (Ex-Officio Member)

iii) Secretary to the Government of India, Department of Science & Technology or his nominee (Ex-Office Member)

iv) Financial Advisor, Government of India, Department of Science & Technology, or his nominee

(Ex-Officio Member)

v) Director, IACS (Secretary General)

vi) Professor S Chandrasekhar, Director-IICT

&

vii) Professor Bhushan Pattavardhan, Vice Chairman, UGC

(Nominated by the Government of India, Department of Science & Technology, for three terms)

viii) Professor Devang Khakhar, Ex-Director, IIT-Mumbai

&

ix) Professor Kapil Hari Paranjayee, IISER-Mohali

(Nominated by the Governing Council of IACS for three terms)

x) Professor Subrata Sinha, AIIMS, New Delhi

(Nominated by the INSA for three terms)

xi) One representative from the Government of West Bengal, who would be an ex-officio member

xii) Professor Arindam Banerjee, Senior Professor, School of Biological Sciences

(Protem member from amongst Academic Staff in the intervening period due to Covid -19 Pandemic)

xiii) Shri S N Bose, Engineer I, IACS (Protem member from amongst Administrative and Technical Staff in the intervening period due to Covid -19 Pandemic)

xiv) Shri Navendu Paul

(Protem member from amongst Research Fellows and associates in the intervening period due to Covid -19 Pandemic)

xv) The Registrar (Non-Member Secretary).

Item No. 7: Announcement of the Composition of the Management Committee

It may be noted that in accordance with the revised regulation 11.1, the Governing Council at its meeting held on 24th February, 2017 recommended the name of Professor M M Sharma, FRS, as the Council Nominee for the post of President of the Association for the second term. It may also be noted that the Management Committee as per the revised Regulation 11.1 for the three terms with the following composition has been formed by the General Body in its Annual General Meeting held on 1st July, 2016. Please note that the period between one Annual General Meeting to the next shall be counted as One Term.

President : (One Position) : Professor Man Mohan Sharma, President

Vice President : (2 Positions) : Director, IACS, Vice President (Ex-Officio)
: Professor Alok Kumar Mukherjee

Hony. Secretary : (One Position) : Professor Amitava Dutta

Hony. Treasurer : (One Position) : Professor Sanjib Ghosh

Member, Management Committee : (Six Positions) :

Professor Dhiranjan Roy

Professor Debasish Bhattacharya

Professor Subir Ghosh

Dr. Bhupati Chakraborty

Dr. Chinmoy Kumar Ghosh

The Governing Council at its meeting held on 2nd July, 2016 appointed Shri Amit K Majumdar, Assistant Registrar – I, Administration, Executive Secretary to the Management Committee.

Item No. 8: Consideration of the Report of the Outreach Activities carried out since the last Annual General Meeting (Outreach Activities were circulated along with the Agenda Notes as Annexure III)

The note was noted and appreciated.

Item No. 9: Any other matter with the permission of the Chair.

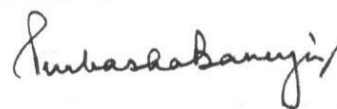
Professor M M Sharma, FRS, President, IACS General Body, congratulated Director, Faculty, Non-Faculty Staff Members, Research Scholars and Students for outstanding achievements during the year. He expressed pleasure and utter satisfaction to be associated with IACS, which is really a happening place in terms of Publication, and Ph. D., for which IACS ranked No. 1 in Nature Index among DST Laboratories. The President categorically advised to concentrate to the following to the noble cause of IACS.

- a) Activate Alumni Association.
- b) Start interaction with industry to fetch donation under CSR.
- c) Select Speaker for 2nd IACS Lecture.
- d) Solicit sponsorship from industry.
- e) Intensify efforts to spread IACS, propagate IACS as far as possible by all means.

f) Sir C V Raman, Nobel Laureate did his monumental work in IACS which brought him Nobel Prize. This message has to be publicized. Banding of IACS may be of utmost priority. Advertisements will be made to attract research students from all over the country.

In response, the Director expressed sincere gratitude to the President for his sagacious guidance and superlative instruction to enrich IACS.

As no further matter was come up, the meeting ended with a Vote of Thanks to the Chair.

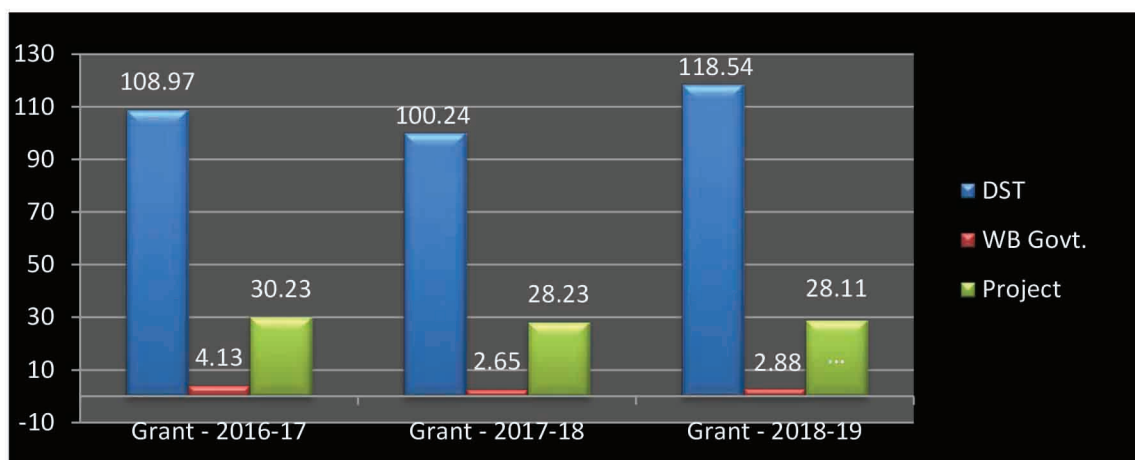


(Purbasha Banerjee)

Acting Registrar

(Professor Man Mohan Sharma)

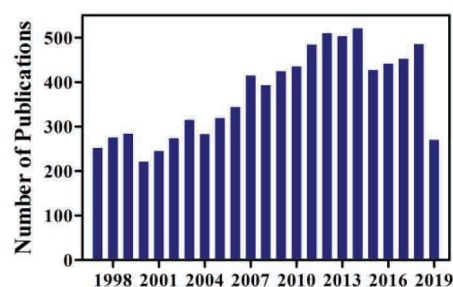
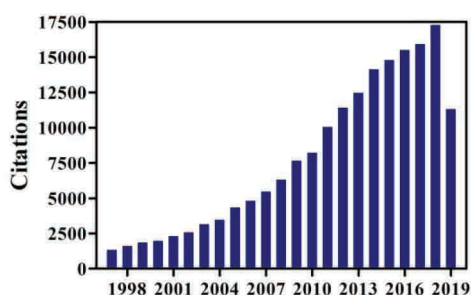
President, IACS.



Budget in 2018-19 : DST – 118.54 crores; WB Government – 2.88 crores

Web of Science

Citation Report (On 21st August, 2019)



Result found 1991-2019

No. of Publications	: >10,000
H Index	: 126
Sum of the times cited	: 180194
Average citations per item	: 18.05
Average citations per year	: 6213.59

Performance during the year (2018-19)

Publication	: 468
Average Impact Factor	: 4.92
Ph.D. Degree Awarded	: 56
Patent Awarded	: 01
Patent Filed	: 11

Executive Summary

To quote the Founder, the great visionary, Dr. Mahendra Lal Sircar “The objective of the Association is to enable the Natives of India to cultivate Science in all its departments with a view to its advancement by original research and with a view to its varied application to the arts and comforts of life.” Even today, IACS is dedicated to the realization of the undying dream of its founder and his compatriots. The institute pursues relentlessly theoretical and experimental research in fundamental and basic sciences with emphasis on translating its discoveries into technology wherever possible and train and prepare the younger generation to handle the challenges of the future, be it in the emerging areas of science or technology.

IACS has currently 6 Schools (School of Applied and Interdisciplinary Sciences, School of Biological Sciences, School of Chemical Sciences, School of Mathematical and Computational Sciences, School of Materials Science and School of Physical Sciences) apart from Service Units that provide research facilitation (Central Scientific Services, Computer Centre, Library, Workshop etc.).

Highlights of major achievements in the different Schools are as follows:

School of Applied and Interdisciplinary Sciences (SAIS)

- Synthesis and functionalization of nanoparticle
- Exploring properties of nanomaterials & molecules
- Complex nanostructures and assemblies
- Energy generation and energy saving

School of Biological Sciences (SBS)

- Self-assembling peptide based functional soft materials
- Peptide stabilized functional nanoclusters for cell imaging
- Carbon-nanodots induced gelation
- Self-assembled soft-materials for programmed enzymatic reactions and prodrug activation
- Carbon nanomaterial included supramolecular systems in biomedicine
- Fluorescent Carbon Dots in Biosensing, Bioimaging and Drug Delivery
- Fluorescent Organic Nanoparticles in Theranostic Application
- Functional analysis of Nonmuscle myosin IIs and their mutants found in human patients
- Functional analysis of the spliced isoforms of nonmuscle myosin II in mouse neuronal cells
- 3D micro-environment regulates NF-kb dependent adhesion to induce monocyte differentiation
- Role of Phospholipid In blood coagulation
- *Computer based Model of TF-FVIIa*
- *Complex on lipid Bilayer*

- Signalling of microparticle formation from cell surface and role of coagulation factors mediated cell signaling.
- Monocyte to Macrophage differentiation
- Molecular mechanism of DNA damage and repair in cancer

School of Chemical Sciences (SCS)

- Development and Applications of Many-Body Theories for Electronic Structure.
- Green synthesis; Catalysis by transition metals, metal nanoparticles and heterogeneous supported metal salts; Visible light and ball milling mediated transformations
- Synthesis of complex and bioactive natural products, their suitable analogues and evaluation of their biological activities
- Asymmetric Catalysis and development of new synthetic methodologies
- Studies on Nonlinear dynamics, Statistical Mechanics
- Transition metal complexes of redox active ligands: Search for their applications.
- LIF spectroscopic investigation of excited state hydrogen/proton transfer reactions, infrared spectroscopy
- Controlled polymerizations, Stimuli-responsive homopolymers/copolymers, Polymer-peptide biohybrids, Synthetic polypeptides, Polymer-inorganic hybrids, Ionic liquids/Poly(ionic liquid)s, Polyzwitterions, Amino acid-based polymers, 2D Materials, Nanocatalysts.
- Theoretical and methodological developments on beyond Born-Oppenheimer treatment of Dynamics of triatomic systems, molecule surface scattering and laser induced molecular scissoring

- Molecular Recognition, Chemical Sensing and Interlocked Molecules
- Crystal Engineering, Supramolecular Chemistry, Molecular Gels, Molecular nanotubes, Coordination polymers and microporous materials, Crystal Growth
- Theoretical studies on hydrogen storage, catalysis and photochemical processes.
- Biomimetic and Bioinspired Inorganic Chemistry, synthesis of metallo-porphyrin complexes and probe, using a combination of spectroscopic techniques and reactivity, fundamental aspects of the heme active sites
- Bio-organic Chemistry, Nucleic acids
- Bioinorganic Chemistry associated with Alzheimer's disease and Type 2 Diabetes: Spectroscopy and Kinetics
- Magnetic materials, metal-organic frameworks
- NIR Absorptive and Emissive Heteroannulenes, through conjugated vs Cross-Conjugated Heteroannulenes, Anti-cancer Drugs, Molecular Magnetism.
- Mechanistic understanding of unfolding of protein, effect of mutation on the conformational dynamics of protein, low temperature hydrophobicity, molecular mechanism of ice growth inhibition by antifreeze protein and mechanistic insight into the functional mechanism of motor protein.
- Folding mechanism of proteins, Stability of unnatural proteins, Role of lipids in the blood coagulation, Role of weak intermolecular interaction in the aerosol formation

Director's Research Unit

Biological Membranes:

- Lipid Design, Synthetic Molecular Membranes & Membrane Biophysics: Structure-Function Studies; Vesicles, Micelles, Signaling in Self-organizing Aggregates; Lipid-DNA Complexation; Lipid-protein Interactions
- New Surfactants: Bolaamphiphiles, Gemini Surfactants, Ion-paired Amphiphiles, Metallo-surfactants, Multi-headed Surfactants etc.
- Soft Condensed Matter and Complex Systems: Association colloids, emulsion, normal and reverse aggregates, Gels.

Chemical Biology:

- Nucleic Acids Recognition and Therapeutics: Stabilization of non-Watson-Crick nucleic acid structures, e.g., A-motif, C-motif, i-motif & G-quadruplex DNA & RNA

- Cellular Delivery: Bioactive/Gene Delivery & Knockdown: Plasmid DNA, si-RNA, sh-RNA, aptamer delivery across eukaryotic cells; Targeting of Cancer cells and Cancer Stem cells and in vivo study

Nanoscience & Technology:

- Nanocarbon-composites and Metal Nanoparticle-composites
- Nanobiotechnology and Nanomedicine
- Application of Nanotechnology in Agriculture etc.

Supramolecular Chemistry:

- Molecular Design: Investigation of the soft materials using a variety of physical methods, e.g., rheology, probe-fluorescence, SANS, SAXS, XRD, DSC, AFM / SEM / TEM / CFM / POM etc.
- Hydrogels & Organogels: Design and synthesis of new gelators & characterization and applications of the resulting gels.
- Novel Applications with Gels: Phase-selective gelation; Gels for sustained pheromone release toward live insect control in fruit orchard.

Bio Analytical Sensors:

- Molecular Probes: Sensors and probes for analytical, theranostics & bio-analytical samples. Detection of biologically relevant species and environmentally hazardous ions or analytes and explosives at nanogram level.

School of Mathematical and Computational Sciences (SMCS)

- Computational Prediction of Compounds with Novel Magnetic Properties
- Unraveling structural changes at Nanoscale
- Hybridization-Switching Induced Insulator-Metal transition uncovered by computation.
- Machine learning prediction of interaction energies in water
- Physics of living and nonliving systems addressed through statistical mechanics
- Computational quantification of various biological processes, such as, cell division, intracellular transport, and organization of cellular objects.

School of Materials Sciences (SMS)

- Biomedical application of functional nanoparticle
- Nanomaterials based light harvesting systems and understanding their fundamental photophysical processes

- Growth of nc-Si-QDs, a-Si/nc-Si superlattice, Si-NWs, DLC/CNT/NCD, doped In_2O_3 , ZnO, TiO_2 thin film nanostructures for solar cells, photocatalytic and other energy applications
- Polymer synthesis, supramolecular polymers, polymer nanocomposites and polymers in energy
- Semiconducting nanostructures and magnetic materials
- Designing of novel microporous and mesomaterials and their energy, environment and biomedical applications
- Electrical, optical and magnetic properties of graphene based functionalized nanostructures are investigated
- Semiconductor nanocrystals for energy harvesting
- Understanding role of spin-orbit coupling in deciding the magnetic and electronic ground states of 4d-5d transition metal oxides
- Inducing multifunctionalities in solids by anion doping and also by manipulating local coordinations
- Use of nanosurfaces for easy extraction of ferrihydrite clusters from water and its usage in water decontamination,
- Understanding nucleation of metal clusters in water and manipulating the process for the use of water purification
- III-V semiconductors, carbon nanostructures, photovoltaics, surface physics, water-splitting, sensors and photodetectors
- oxides, luminescent devices, resistive switching, photodetectors and photocatalysts respectively.
- Investigation of functional materials including superconductors, novel magnetic materials (such as 2D magnets and spin liquid systems) and topological materials using different measurement techniques for measuring electrodynamic response over a large frequency range spanning from d.c. to infrared.
- Atomically thin van der Waals magnets have taken the center-stage in condensed matter physics during the last two years. The realization of long-range magnetic order (ferro/anti-ferromagnetic) in two-dimension (2D), and the fluctuation-driven generation of new phases, combined with their rich electronic and optical properties, could lead to new magnetic, magnetoelectric and magneto-optic applications. Recently, scanning magneto-optic Kerr microscopy (SMOKE) has revealed intrinsic long-range ferromagnetic order in pristine atomic layers. Together with magnetic ordering, in 2D, spin-phonon coupling has a key role to play in the spin and thermal relaxation processes. Obviously, it is important to explore the phonon dynamics and their interplay with the 2D magnetism.
- Our research aims to explore spin-phonon coupling in two dimensional layered anti-ferromagnet (AFM) via low-temperature magneto-Raman scattering. In our recent experiment, temperature-dependent study of Raman modes of few-layer AFM, iron phosphorus trisulfide (FePS_3) (Néel temperature $\sim 120\text{K}$), suggests: i) the persistence of magnetic ordering down to monolayer, ii) evidence of large spin-phonon coupling in few layer, iii) signature of magnon excitation in the ordered phase. In future, effect of ion-implantation on the magnetic properties of exfoliated few-layer flakes on standard Si wafers will be studied in nanoelectronic device framework.
- Magneto-structural instability in transition metal based solids including ferromagnetic shape memory alloys and multiferroic oxides. Ground state magnetic properties of transition metal oxides with novel low dimensional crystal structure and geometrically frustrated systems.

School of Physical Sciences (SPS)

Experimental Physics:

- Organic electronics, Solar cells based on hybrid perovskites and inorganic semiconductors, Scanning Tunneling Spectroscopy of 2D transition metal dichalcogenides and topological insulators, spintronics.
- Charge carrier dynamics in glasses, polymers and oxide ion conductors has been correlated with microscopic lengths of dynamics and network structure.
- Magnetism and conductivity mechanism of strongly correlated systems.
- Investigations on the electrical transport, photoluminescence, photoconductivity and photocatalysis properties of Metal Oxide-based thin films, nanostructures, and nanocomposites for applications as transparent conducting

Theoretical Physics:

Atomic, Molecular and Optical Physics:

Our works mainly focused on the cavity quantum optics with a V-type three level emitter, showing interesting photon-photon correlation and entanglement properties, and opening a new perspective for the generation of correlated photon-

pairs. Our other works are mainly concerned with coherent free-bound spectroscopy and ion-atom cold collisions. In collaboration with an experimental group of Shanxi University, we have developed a theoretical model which successfully explains the experimental observation of Fano effect in an atom-molecule coupled system.

- **Condensed Matter and Statistical Physics:**

We focus mainly on aspects of nonequilibrium dynamics of condensed matter systems. The broad questions relating to the foundation of the statistical mechanical description of those non-equilibrium systems are attempted to answer, and the scenarios are proposed to unify the understanding in terms of ensuing formalism. One of our present focuses is on developing Floquet formalism for interacting many-body systems, and understanding the broad principles. Another is regarding dynamics of quantum phase transition beyond the Kibble-Zurek paradigm. Spin-orbit induced emergent phenomena in strongly correlated systems; Metal-Insulator transition; Multiferroics.

- **Fields, Strings, Gravity, Cosmology and Mathematical Physics:**

Kalb-Ramond field in the context of moduli stabilization and extra dimensions. Inflation and Magnetogenesis. Black hole physics. Holography in de Sitter and anti-de Sitter Spaces and local fields as Gel'fand Graev Radon transform.

- **Lattice Gauge Theory & Mathematical Physics:**

Accelerating lattice QCD simulations with 2 flavors of staggered fermions on multiple GPUs using OpenACC - a first attempt, Low Energy Spectrum of SU(2) Lattice Gauge Theory: An Alternate Proposal via Loop Formulation.

- **Particle Physics Phenomenology:**

Distinctive Collider Signals for a Two Higgs Triplet Model, Revisiting the high-scale validity of the type II seesaw model with novel LHC signature, Dark Matter Blind Spots at One-Loop, Electroweak Dark Matter at Future Hadron Colliders, Higgs Couplings at High Scales, Signatures of supersymmetry and $L_\mu-L_\tau$ gauge boson at Belle-II, Supersymmetric gauged U(1) $L_\mu-L_\tau$ model for neutrinos and the muon $(g-2)$ anomaly, Sbottoms as probes to MSSM with nonholomorphic soft interactions, Probing Non-holomorphic MSSM via Precision Constraints, Dark Matter and LHC Data, keV Neutrino Dark Matter in a Fast Expanding Universe.

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

BUDGET AT A GLANCE

EXPENDITURE	Actual Expenditure (Audited) 2018-19			Projected Budget 2018-19 as approved by F.C. Dt-29/05/2017			
	Non Plan	Plan	Total	Non Plan	Plan	Total	
ESTABLISHMENT Salary,Fellowship,Pension,Superannuation,etc	-	7,817.63	7,817.63		8,116.81	8116.81	
ESTABLISHMENT Other essential Establishment expenditure (electricity,telephone,medical etc,)		1,021.71	1021.71	-	1,237.11	1,237.11	
CONTINGENCIES (Office Expenses)	-	276.18	276.18		590.29	590.29	
CONSUMABLES (Laboratory Expenses, Library, Workshop, Research Publication, Civil Maintenance,etc.)	47.85	939.93	987.78	200.00	991.31	1,191.31	
TOTAL :	47.85	10,055.45	10,103.30	200.00	10,935.53	11135.53	
Books & Journals		115.57	115.57		300.00	300.00	
Equipment & Research Facilities (including AMC for High Value Equipment)		2,125.38	2,125.38		900.00	900.00	
Building (Works with CPWD and Development of Present campus & Baruipur Campus)		281.22	281.22		500.00	500.00	
Electrical augmentation ,etc.		53.08	53.08		175.00	175.00	
Implementation of Open Access Publication					510.00	510.00	
Office Computerisation,Software/ Digitisation of Old Record		242.75	242.75		300.00	300.00	
Installation of Safety Measures		-	-		100.00	100.00	
Science Outreach		-	-		300.00	300.00	
Solar Panel at present Campus		-	-		100.00	100.00	
GRAND TOTAL :	47.85	12,873.45	12,921.30	200.00	14,120.53	14,320.53	

RECEIPTS	Actual Receipt (Audited) 2018-19			PROJECTED BUDGET 2019-20			
(Expected figures for 2019-20 & 2020-21)	Non-Plan (A)	Plan (B)	Total (A+B)	Non-Plan (A)	Plan(B)	Total(A+B)	
Opening Balance		725.21	725.21				
Government of India Grant received for 2018-19		11836.56	11836.56	0.00	17087.14	17087.14	
Government of West Bengal	47.85	240.00	287.85	50.00	350.00	400.00	
Interest from Deposits of Grant		127.25	127.25				
Interest on Margin Money		80.94	80.94				
Margin Money conversion		511.59	511.59				
Less: Closing Balance		648.10	648.10				
TOTAL :	47.85	12873.45	12921.30	50.00	17437.14	17487.14	

(Rupees in lakhs)

Projected Budget 2019-20 as approved by F.C. Dt-13/09/2018			Projected Revised Budget 2019-20			Projected Budget 2020-21		
Non Plan	Plan	Total	Non Plan	Plan	Total	Non Plan	Plan	Total
-	10,969.13	10,969.13	-	9,890.69	9890.69		10,364.27	10,364.27
-	1,498.92	1,498.92	-	1291.44	1291.44		1,535.04	1,535.04
	624.90	624.90	-	525.29	525.29		630.69	630.69
50.00	1,154.18	1,204.18	50.00	1180.68	1230.68	50.00	1,416.60	1,466.60
50.00	14,247.14	14297.14	50.00	12,888.09	12,938.09	50.00	13,946.61	13996.61
	300.00	300.00		250.00	250.00		300.00	300.00
	900.00	900.00		1,200.00	1,200.00		1,200.00	1,200.00
	500.00	500.00		750.00	750.00		750.00	750.00
	180.00	180.00		200.00	200.00		180.00	180.00
	510.00	510.00		300.00	300.00		510.00	510.00
	300.00	300.00		400.00	400.00		300.00	300.00
	100.00	100.00		100.00	100.00		100.00	100.00
	300.00	300.00		100.00	100.00		300.00	300.00
	100.00	100.00		200.00	200.00		100.00	100.00
50.00	17,437.14	17,487.14	50.00	16,388.09	16,438.09	50.00	17,686.61	17,736.61

PROJECTED REVISED BUDGET 2019-20			PROJECTED BUDGET 2020-21 (Provisional)		
Non-Plan (A)	Plan (B)	Total (A+B)	Non-Plan (A)	Plan (B)	Total (A+B)
50.00	16038.09	16038.09	50.00	17336.61	17336.61
	350.00	400.00		350.00	400.00
50.00	16388.09	16438.09	50.00	17686.61	17736.61

Sd/. Purbasha Banerjee
Acting Registrar
Kolkata - 700 032

Sd/. S. Bhattacharya
Director, IACS
Kolkata - 700 032

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

Balance Sheet as at March 31st, 2019

Particulars	Schedule	Current Year (Rs.)	Previous Year (Rs.)
CORPUS/CAPITAL FUND AND LIABILITIES			
Corpus/Capital Fund	1	1,56,96,83,288.00	1,33,38,16,506.00
Reserves and Surplus	2	33,75,08,093.00	33,99,97,409.00
Earmarked/Endowment Fund	3	33,46,39,151.00	45,09,97,558.00
Secured Loans and Borrowings	4	-	-
Unsecured Loans and Borrowings	5	-	-
Deferred Credit Liabilities	6	-	-
Current Liabilities and Provisions	7	16,68,88,406.00	27,72,41,842.00
Total :		2,40,87,18,938.00	2,40,20,53,315.00
ASSETS			
Fixed Assets at written down value	8	1,76,23,63,303.00	1,60,38,84,140.00
Investments - For Earmarked/Endowment Fund	9	1,13,400.00	1,13,400.00
Investments - Others	10	-	-
Current Assets, loans, Advances etc	11	64,62,42,235.00	79,80,55,775.00
Miscellaneous Expenditure (to the extent not written off or adjusted)			
Total :		2,40,87,18,938.00	2,40,20,53,315.00
Significant Accounting Policies Note. 1		-	-
Schedule 1 to 23 forming Part of Accounts			
As per our attached report of even date.			

For, K. Sharma & Co
Chartered Accountants
FRN No 304025E

A.K. Chakraborty
Partner
Membership No. 014590

Sd/ Purbasha Banerjee
Acting Registrar
IACS, Kolkata - 700 032

S/d. S. Bhattacharya
Director, IACS
Jadavpur, Kolkata - 700 032

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

Income and Expenditure for the year ended March 31st, 2019

	Schedule	Current Year (Rs.)	Previous Year (Rs.)
INCOME			
Income form Sales/Services	12	17,330.00	10,03,319.00
Grants/Subsidies	13	1,04,14,05,000.00	81,75,94,000.00
Fees/Subscriptions	14	9,92,862.00	6,63,113.00
Income from Investments (Income on Investment from Earmarked/ Endowment Funds transferred to funds)	15	1,39,947.00	30,22,272.00
Income from Royalty, publication, etc.	16	36,58,190.00	34,48,465.00
Interest Earned	17	2,28,25,347.00	1,51,75,818.00
Other Income	18	2,45,703.00	27,79,284.00
Increase/Decrease in stock of Finished goods and work-in-progress	19	-	-
Overhead money received from Project		-	-
Total (A)		1,06,92,84,379.00	84,36,86,271.00
EXPENDITURE			
Establishment Expenses	20	67,06,17,246.00	81,61,64,563.00
Other Administrative Expenses etc.	21	14,70,79,341.00	13,46,48,453.00
Expenditure on Grants & Subsidies	22	1,47,271.00	1,77,769.00
INTEREST	23	1,11,73,239.00	-
Consumables		4,19,71,047.00	3,20,37,690.00
Prior Period Expenses			
Annual Maintenance Expenses		2,72,56,273.00	2,02,81,665.00
Overhead money received from Project		-	22,86,630.00
Depreciation (Net total at the year end-corresponding to Sch.8)		12,10,87,312.00	9,50,36,308.00
Overhead Money Transferred to IACS Overhead A/C as per Sch 3		-	-
Total (B)		1,01,93,31,729.00	1,10,06,33,078.00
Balance being excess of Income over Expenditure (A-B)		4,99,52,650.00	(25,69,46,807.00)
Transfer to Special Reserve (Specify)			
Transfer to/from General Reserve			
Balance being Surplus (Deficit) Carried to Corpus/Capital Fund		4,99,52,650.00	(25,69,46,807.00)

For, K. Sharma & Co
Chartered Accountants
FRN No 304025E

Sd/ Purbasha Banerjee
Acting Registrar
IACS, Kolkata - 700 032

A.K. Chakraborty
Partner
Membership No. 014590

Sd/ . S. Bhattacharya
Director, IACS
Jadavpur, Kolkata - 700 032

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

Receipt and Payments Accounts for the year ended March 31st, 2019

Receipts	Current Year (Rs.)	Payments	Current Year (Rs.)
Opening Balance			
1. Bank Balances :		Expenses	
With Scheduled Banks:		a) Establishment Expenses	
a) General :		(corresponding to Schedule-20)	67,06,17,246.00
Current Account with :		b) Administrative Expenses	
SBI, Jadavpur Univ.	17,60,747.23	(corresponding to Schedule-21)	14,70,79,340.77
SBI, Kolkata Main	4,33,427.00	c) AMC for Laboratories - General	2,72,56,272.54
SBI, Jadavpur Univ. Flexi A/C	-	d) Consumables - General	4,19,71,047.02
Union Bank Ballygunj Br.	(10,88,73,744.11)	e) Revenue Expenses on A/C of Project	11,44,21,643.00
Union Bank Main Branch	20,70,564.00	f) Revenue Expenses on A/c of TRC	78,81,401.57
		Contribution to Medical Scheme : TRC	-
		Income Tax Deducted (194C) : TRC	-
		Sales Tax Deducted At Source : TRC	-
		Labour Welfare Cess : TRC	-
		Security Deposit : TRC	-
		Income Tax Deducted From Salary : TRC	-
		Professional Tax - TRC	370.00
b) Project Fund:		Payments made against fund for various projects	
Current Account with:		Expenses incurred for Spl. End. Fund - IACS	
SBI, Jadavpur Univ.	33,56,784.20	(corresponding to Schedule-22)	1,47,271.00
Cheques in hand	-	Interest	
Union Bank - Ballygunj Br.	17,79,31,752.80	(corresponding to Schedule-23)	1,11,73,239.00
c) TRC A/c:		Investments and Deposits made	
Union Bank Ballygaunge Branch	(26,84,539.46)	Out of Earmarked/Endowment funds	
Union Bank Ballygaunge Branch -Flexi A/C	16,71,10,000.00	Others (to be specified)	
		TDR with SBI -(Fixed Deposit with Bank)	
2. Cash Balances :		Out of Own funds (Investments-Others)	
a) General :		TDR with Union Bank	
Imprest Cash	7,09,605.00	Income Tax Receivable A/c TRC	
Cash in hand	-		
Grants Received :		Expenditure on Fixed Assets & Capital Work-in-Progress	
1. Central Government - Plan	1,18,54,56,000.00	Purchase of Fixed Assets	25,40,34,330.89
Non-Plan	-	Expenditure on Capital Work-in-Progress	2,80,21,460.00
2. State Government - Plan	2,40,00,000.00	Capital Expenditure Account Project	5,52,23,998.70
Non-Plan	47,85,000.00		
Total of Page 01	1,45,60,55,596.66	Total of Page 01	1,35,78,27,620.49
Balance B/F Page 01	1,45,60,55,596.66	Balance B/F Page 01	1,35,78,27,620.49
		Refund of Surplus Money/Loan	
Grant received on account of Project	18,00,17,303.17	To the Government of India (General Fund Interest)	1,11,73,239.00
Grant received on A/C TRC	10,00,00,000.00	To the State Government	
		To the other providers of funds	
		Infrastructure A/c TRC (Deposit with CPWD)	13,77,00,000.00

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

Receipt and Payments Accounts for the year ended March 31st, 2019

Receipts	Current Year (Rs.)	Payments	Current Year (Rs.)
		Equipment A/c TRC	8,85,38,751.52
Interest Received :			
General A/C's:		Amount Borrowed	
Interest on TDR (Project)	62,71,562.00	Term Deposit	
Interest on House Building	19,98,481.00	Any other receipts	
Interest on Research Endowment Fund	6,040.50	General A/C's : (Loans and Advances)	
Interest on Vehicle Advance	7,088.00	Advance - General	2,99,06,490.44
Interest on TDR against Margin Money	80,94,190.00	Advance - LTC	42,88,490.00
Interest on Computer Advance	-	Advance - Medical	-
Interest on Security Deposit (CESC)	-	Advance - Vehicles	-
Interest on TDR on Short Term Deposit	2,38,98,827.00	Advance - Computer	30,000.00
Interest on Term Deposit A/c - TRC	(19,25,844.00)	Advance - Puja	3,40,800.00
Interest on TDR against Margin Money - TRC	1,09,901.00	Advance - House Building	-
		Advance against Consumables	76,820.48
Other Income: Income from Sales and Services		Advance - A/c TRC	26,69,137.59
General A/C's :		Accounts Receivable	12,90,49,634.00
Analytical Charges	15,000.00	Contribution to GSLI	2,13,310.00
Sale of Liquid Nitrogen	79.60	Security Deposit by IACS	37,50,124.51
Photo Copy charges	-	TDR with Union Bank	41,25,68,836.00
Income from Liquidated damage	-	TDR with SBI	-
Miscellaneous Income	2,45,703.00	Margin Money A/c TRC	-
Hall Rent	-	Receivables	2,234.60
Admission Fees For Int. Ph.D.	-	Accounts Receivable - Project	14,73,959.00
S & T Consultancy	9,92,862.00		
Garage Rent (Basundhara)	-	Overhead money received from Project	-
Ordinary Membership Subscription	-	Imprest Cash addition	-
Income from TDS Refund	-	Margin Money	-
		Income Tax Receivable (TDS on A/C of S&T Consultancy)	11,448.00
Creche Receipts	2,250.00	Advance - Project	15,06,328.28
Rent For Guest House	-		
Overhead from Project	-		
Total of Page 02	1,77,57,89,039.93	Total of Page 02	2,18,11,27,223.91
Balance B/F Page 02	1,77,57,89,039.93	Balance B/F Page 02	2,18,11,27,223.91
Income from Technopreneurship	-	TDR - Project	-
Hostel seat rent	1,33,906.00	Margin Money (Project)	2,58,73,842.00
Publication Income - IJP	36,58,190.00	Unclaimed GPF	-
Income from Scientific & Technical Consultancy	-	Advance for TRC Project A/C CPWD	-
Analytical Charges - Project	-		
Analytical Charges - TRC	27,000.00	General A/C's (Current Liabilities)	
Scientific & Technical Consultancy - TRC	96,970.00	Caution Money - Integrated Phd.	76,000.00
Income from Royalty	-	Earnest Money written back	-
Amount Borrowed	-	Earnest Money	9,17,318.00
Any Other Receipts	-	Security Deposit from Contractors	20,05,709.00

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

Receipt and Payments Accounts for the year ended March 31st, 2019

Receipts	Current Year (Rs.)	Payments	Current Year (Rs.)
		Security Deposit written back	-
General A/C's (Loans and Advances)		Security Deposit A/C Project:	-
Advance General	3,75,40,704.79	Current Liabilities written Back	-
Advance - LTC	44,14,490.00	Earnest Money A/c TRC	-
Advance - Medical	-	Secutiry Deposit A/c TRC	-
Advance - Vehicles	77,320.00		
Advance - Computer	1,03,988.00	General A/C's (Other Liabilities)	
Advance - Puja	9,93,300.00	General Fund	6,04,904.00
Advance - House Building	18,58,914.00	GST Liability of other A/C paid from general fund	-
Advance against Consumables	76,820.48	Advance received on other A/C of General fund	-
		House Building Loan from Union Bank	35,39,602.00
Margin Money A/C TRC	5,45,56,386.00	Income Tax Deducted from Salary	6,86,78,783.00
Receivables	-	Income Tax Deducted U/S 194C	12,15,396.00
Accounts Payable	12,96,67,443.00	Income Tax Deducted U/S 194J	22,64,453.00
Contribution to GSLI	2,12,785.00	Income Tax Deducted U/S 195	-
Security Deposit by IACS	-	Insurance Premium under SS Scheme	31,04,596.10
TDR with Union Bank	46,17,00,000.00	Professional Taxes	6,39,300.00
TDR with SBI	-	Profession Tax (Project)	-
Accounts Payable - Project	-	SAE Co-operative Credit Society	1,48,40,237.00
Imprest Cash A/C TRC	-	SAE Benefit Society	24,410.00
Margin Money	5,11,59,197.00	SAE Provident Fund	4,29,04,783.00
Performance Security Deposit - Project	-	Sales Tax Deducted from Contractors	-
Advance - Project	-	Labour Welfare Cess	1,22,532.00
TDR - Project	-	Attachment of Pay	-
Margin Money (Project)	-	Service Tax	-
		Goods & Service Tax	1,92,87,526.38
Total of Page 03	2,52,20,66,454.20	Total of Page 03	2,36,72,26,615.39
Balance B/F Page 03	2,52,20,66,454.20	Balance B/F Page 03	2,36,72,26,615.39
Contribution to GSLI - Project	-	Income Tax Receivable	11,81,264.00
		Deputation Remittance	15,19,575.00
Hostel Seat Rent - Project	54,185.00	Outstanding Liabilities	11,24,73,268.20
		Hostel Seat Rent - Project	-
General A/C's (Current Liabilities)		Income Tax (Project)	-
Caution Money - Integrated Phd.	2,23,000.00	Contribution to GSLI - Project	-
Earnest Money	8,79,149.00	Unallocated Payments - Project	-
Earnest Money written back	4,29,450.00	CMS (Project)	-
Security Deposit from Contractors	19,83,986.60	Grant transferred to TRC from Project	-
Security Deposit written back	1,75,454.00		
General A/C's (Other Liabilities)		Closing Balances:	
General Fund	6,04,904.00	1. Bank Balances:	
GST Liability of other A/C paid from general fund	2,01,367.00	With Scheduled Banks:	
House Building Loan From Union Bank	35,40,308.00		
Income Tax Deducted from Salary	6,89,05,789.00	a) General :	
Income Tax Deducted U/S 194C	13,20,082.00	Current Account with:	
		SBI, Jadavpur Univ.	1,47,792.53

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

Receipt and Payments Accounts for the year ended March 31st, 2019

Receipts	Current Year (Rs.)	Payments	Current Year (Rs.)
Income Tax Deducted U/S 194J	20,35,316.00	SBI, Main Br.	4,33,427.00
Income Tax Deducted U/S 195	-	Union Bank Ballygunj Br.	-
Insurance Premium under SS Scheme	31,04,598.20	Union Bank Main Branch	7,77,542.00
Professional Taxes	6,39,300.00	SBI, Jadavpur Univ. Flexi A/C	-
SAE Co-operative Credit Society	1,48,40,237.00		
SAE Benefit Society	24,410.00	b) Project Fund:	
SAE Provident Fund	4,29,04,783.00	SBI, Jadavpur Univ. Branch	5,75,62,377.55
Sales Tax deducted from Contractors	-	Union Bank - TDR A/c Project	10,99,20,000.00
Labour Welfare Cess	1,28,772.00	Union Bank Ballygunj Br.	17,63,408.64
Attachment of Pay	-		
Profession Tax (Project)	-	c) TRC A/c:	
Service Tax	-	Union Bank Ballygunj Br.	68,14,452.86
Goods & Service Tax	38,46,888.60	Union Bank Flexi	7,36,90,000.00
TDS on GST (Project)	1,08,301.00		
Deputation Remittance	15,19,575.00		
Income Tax Receivable	3,45,447.00	Grant Receivable from Govt. of W.B.	-
CMS - TRC	-	Grant Receivable from Central Government A/c	-
Income Tax Salary TRC	-		
Income Tax U/s 194C - TRC	3,740.00		
Sales Tax deducted from Contractor A/c - TRC	-	Accrued Income from Publication	32,93,013.86
Total of Page 04	2,66,98,85,496.60	Total of Page 04	2,73,68,02,737.03
Balance B/F Page 04	2,66,98,85,496.60	Balance B/F Page 04	2,73,68,02,737.03
Income Tax (Project)	5,669.00		
Income Tax U/s 194J - TRC	500.00	2. Cash Balances:	
Grant Receivable from Govt. of West Bengal	-	a) General:	
Grant Receivable from Central Government A/c	-	Imprest Cash	7,50,000.00
Income Tax Receivable S & T	11,448.00	Cash in hand	-
Accrued Income from Publication	31,03,660.86	Imprest Cash TRC	-
Outstanding Liabilities	-		
CMS (Project)	-	3. Bank Balance - General (O/D)	
Bank Balance - Union Bank Flexi A/C (Closing)	6,45,45,963.25	SBI - JU (Opening)	
		Union Bank Ballygunj Br.	
	2,73,75,52,737.71		2,73,75,52,737.03
Schedule 1 to 23 forming part of Accounts as per our attached report of even date			

Sd/ Purbasha Banerjee
Acting Registrar
Kolkata - 700 032

Sd/. K. Sharma
for K. Sharma & Co
Chartered Accountants

Sd/. S. Bhattacharya
Director, IACS
Kolkata - 700 032

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

Balance Sheet as at March 31st, 2019

Schedule 8 : Fixed Assets

SL No	Particulars	GROSS BLOCK				DEPRECIATION			Net Block as On 31.03.2019
		Balance as on 01.04.2018	Addition during the year	Deduction during the year	Total	Depreciation as on 01.04.2018	Depreciation for the year	Total Depreciation	
1	Land (Jadavpur)	315,511,000.00	-	-	315,511,000.00	-	-	-	315,511,000.00
2	Land (Baruipur)	347,082,598.00	-	-	347,082,598.00	-	-	-	347,082,598.00
3	Software - Oracle	32,938,849.00	24,275,691.22	-	57,214,540.22	22,893,782.00	13,309,747.00	36,203,529.00	21,011,011.22
4	Building and Sheds	304,488,061.00	55,000.00	-	304,543,061.00	188,796,270.00	11,571,929.00	200,368,199.00	104,174,862.00
5	Building and Sheds (Baruipur)	-	-	-	-	-	-	-	-
6	Residential Building	1,734,000.00	-	-	1,734,000.00	797,016.00	46,849.00	843,865.00	890,135.00
7	Plant & Machinery	753,363,146.71	167,454,021.55	-	920,817,168.26	489,768,935.00	52,098,184.00	541,867,119.00	378,950,049.26
8	Computers	121,570,090.53	44,623,481.42	-	166,193,571.95	114,596,931.00	17,570,940.00	132,167,871.00	34,025,700.95
9	Electrical Installation	85,151,272.78	5,307,333.20	-	90,458,605.98	53,930,657.00	5,081,142.00	59,011,799.00	31,446,806.98
10	Vehicles	4,069,975.00	-	-	4,069,975.00	2,006,273.00	309,555.00	2,315,828.00	1,754,147.00
11	Tubewell & W. Supply	4,033,926.00	45,638.20	-	4,079,564.20	1,966,902.00	208,984.00	2,175,886.00	1,903,678.20
12	Capital Work-in-progress (CPWD)	284,399,044.00	28,021,460.00	-	312,420,504.00	-	-	-	312,420,504.00
	Sub Total	2,254,341,963.02	269,782,625.59	-	2,524,124,588.61	874,756,766.00	100,197,330.00	974,954,096.00	1,549,170,492.61
13	Furniture & Fixture (Incl. other Furniture & Fixture)	30,753,553.50	516,890.20	-	31,270,443.70	16,714,142.00	1,429,786.00	18,143,928.00	13,126,515.70
14	Office Equipment	19,765,288.00	200,221.20	-	19,965,509.20	13,150,524.00	1,007,232.00	14,157,756.00	5,807,753.20
	Sub Total	50,518,841.50	717,111.40	-	51,235,952.90	29,864,666.00	2,437,018.00	32,301,684.00	18,934,268.90
15	Books	509,901,012.42	750,936.00	-	510,651,948.42	318,172,217.00	19,210,427.00	337,382,644.00	173,269,304.42
16	Subscription to e-journal	12,543,127.74	10,805,117.90	-	23,348,245.64	627,156.00	1,731,853.00	2,359,009.00	20,989,236.64
	Sub Total	522,444,140.16	11,556,053.90	-	534,000,194.06	318,799,373.00	20,942,280.00	339,741,653.00	194,258,541.06
	Cumulative Total	2,827,304,944.68	282,055,790.89	-	3,109,360,735.57	1,223,420,805.00	123,576,628.00	1,346,997,433.00	1,762,363,302.57
	Previous Year	2,515,902,070.34	311,402,874.34	-	2,827,304,944.68	1,125,620,077.00	97,800,728.00	1,223,420,805.00	1,603,884,139.68

Note:

- a) On the basis of the decision of the Finance Committee of IACS in its meeting held on 19.06.2007, the updated value of Fixed Assets has been adopted in the Final Accounts of 2006-07
- b) Total amount of Depreciation calculated during the year has been charged to Income & Expenditure A/C Rs. 121087312/- and Rs. 2489316/- against Revaluation Reserve.
- c) Depreciation other than Books has been charged at the rate as provided by the Income Tax Act, Depreciation on books has been charged @ 10% p.a.

Sd/. Purbasha Banerjee
Acting Registrar
Kolkata - 700 032

Sd/.. K. Sharma
for K. Sharma & Co
Chartered Accountants

Sd/. S. Bhattacharya
Director, IACS
Kolkata - 700 032

K. SHARMA & CO.
CHARTERED ACCOUNTANTS

Independent Auditors' Report

To
The Management of
Indian Association For The Cultivation Of Science

1. Report on the Financial Statements

We have audited the accompanying financial statements of INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE (IACS), which comprise the Balance Sheet as at March 31st, 2019 and the Income & Expenditure Account and Receipts & Payments Accounts for the year ended, and a summary of other explanatory notes and information.

2. Management's Responsibility for the Financial Statements

Management is responsible for the preparation of these financial statements that give a true and fair view of the financial position, financial performance of the Institute in accordance with the generally accepted accounting practices followed in India. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation and presentation of the financial statements that give a true and fair view and are free from material misstatements, whether due to fraud or error.

3. Auditor's Responsibility

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments the auditor considers internal control relevant to the Association's preparation and fair representation to the financial statements in order to design audit procedures and are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness 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 of our audit opinion.

4. Opinion

- 1) Contrary to Accounting Convention and Concept as stated under Significant Accounting Principles, Policies and Practices followed by IACS, it has been observed that the books of accounts have been maintained on cash basis except in cases of:-
 - (i) Accrued income from IJP
 - (ii) Income Tax receivable
 - (iii) Outstanding liabilities for expenses
 - (iv) Grant Receivable
- 2) The Fixed Assets Register has not been prepared for the year ended 31.03.19 and 31.03.18 and also, no physical verification of fixed assets was done during the year under audit or previous years. The Fixed Assets Register has only been prepared till the year ended 31.03.17.
- 3) The Association is responsible for the physical verification of the fixed assets of the Association periodically and maintain the detailed records of the fixed assets, periodically in the Physical Verification Reports. No such verification has been done by the respective authorities for the year and hence, the Physical Verification Reports were not prepared and maintained by the Association, and thus was not available for the purpose of verification.
- 4) There is a system of pre-audit of all expenses and payments made by the Association. However, there is further necessity and scope for improvement of the Internal Control Procedures, for better compliance with the Annual Budget.

- 5) Outstanding Liability for Expenses, as per the General accounts, comprises of following amounts:-

NPS Employee contribution of Sri C. Goswami	₹	1,502.00
Campus Safety Security Charges:	₹	17,30,337.60
Maintenance Charges other than Building:	₹	8,73,977.20
AMC-Electricals:	₹	6,89,280.00
Establishment Fellowship	₹	20,14,729.00
Provision for balance amount of Bhatnagar award	₹	1,50,000.00
Liability for Arrear Establishment Salary:	₹	4,57,91,534.00
Liability for Arrear Pension:	₹	4,00,00,000.00
Provision for Arrear for commutation of Pension, etc:	₹	5,95,00,000.00
Electricity Charges:	₹	40,55,294.00
Total		₹ 15,48,06,653.80

No provision has been made for any other expenditure incurred for the year. All expenditure incurred or income received has been accounted for on cash basis except for the few heads already mentioned in Point 1 of our Opinion paragraph. Necessary steps should be taken by the Association to make provisions for the expenditure incurred, especially of recurring nature, if any, in the Financial Statements.

- 6) Following amounts relating to General accounts, are receivable from various parties, and are lying due/unadjusted for more than 2 years:-

Person/Party	Date	Amount(₹)
National Insurance Company	Not known. Very old.	30,069.00
Contribution to Project A/c - Dr. Sudip Malik	24.03.16	10,000.00
Receivable from Project A/c for Custom Duty and Entry Tax	2015-16	3,15,493.00
Dues from Project A/c	Due for more than 2 yrs	8,970.00
Total		3,64,532.00

The Association should obtain the Debtors Confirmation Certificates from the respective parties. Necessary follow-up action should be taken to arrange for proper realization of dues from the respective parties relating to the above balances. In case the realization of the above amounts is uncertain, necessary provisions should be made for doubtful debts.

- 7) Accounts Payable balance, in case of General accounts, as on 31.03.19 includes the following balances which are lying unadjusted/unpaid for more than 2 years:-

Person/Party	Date	Amount(₹)
SEC Conference	Not known	1,15,015
Sri Manas Ranjan Chakraborty	Not known	8,010
Amar Singh Harijon	26.02.10	7,386
DST (New Delhi)	28.09.11	32,637
DST (New Delhi)	28.09.11	1,25,000
Sanjib Naskar	05.08.14	7,18,152
Indian statistics	12.01.15	51,451
Contribution to NPS A/c Sri Sanjib Naskar	Not known	3,34,883
Kalidas Mondal	17.02.17	19,554

In most of the cases specified above, the balances are lying unadjusted for more than 3 years. Necessary follow-up action should be taken to arrange for proper payments to the respective parties relating to the above balances.

- 8) In the course of examination of Bank Reconciliation Statements relating to General Accounts, we observed the following:-

(a) UBI – Flexi (Acc No. 301201110050002)

- Old cheques amounting to a total of ₹ 6,000 are deposited by IACS, but not yet credited by the bank. These cheques are lying unadjusted for more than 2 years.
- Amounts totalling ₹ 20,20,780 have been found wrongly debited by the bank, is lying unadjusted for more than 6 months.

Necessary steps should be taken by the Association to follow-up with the bank and adjust the aforesaid unadjusted amounts, at the earliest.

(b) INITIATIVE Account (Acc No. 35514943352)

- (i) Amount of ₹ 5,900 was deposited through cheque no. 071945 dated 23.07.18, but not credited by bank, and is lying unadjusted for more than 6 months.
- (ii) Amount of ₹ 15,930 relating to RTGS (NIPER) dated 09.03.18 have been found as credited by bank, but no corresponding response is not provided by the respective party and hence the amount is lying unadjusted for more than 1 year.

(c) SBI – JU (Acc No. 11079699244)

- (i) Cheques and IPOs amounting to a total of ₹ 1,530 were deposited, but not credited by bank. The amounts are lying unadjusted for more than 1 year.
- (ii) Amounts totalling ₹ 56,585 have been disclosed by the Association as wrongly credited by bank, are lying unadjusted for more than 3 years.
- (iii) Amounts totalling ₹ 6,448 have been disclosed as wrongly Debited by bank, are lying unadjusted for more than 1 year.
- (iv) Cheques and RTGS amounting to a total of ₹ 83,881 issued for payment, but not Debited by bank, lying unadjusted for more than 1 year.

Necessary steps may be taken by the Institute to adjust the above amounts, or write off the amounts where adjustment cannot be made in case of very old amounts.

- 9) In case of LTC Advances of General Accounts, one instance is observed relating to Sri Bajinath Kurmi, where the advance of ₹ 4,120 is pending unadjusted for more than 2 years. This needs to be followed up with the above-mentioned party and adjusted.
- 10) In case of General Advances, there were instances where advances are pending unadjusted or unapplied for more than 2 years, which needs to be followed up with the respective parties and adjusted. Some instances are as follows:-

Person/Party	Document Ref.	Date	Amount(₹)	Department
Smt. Jhimli Mukherjee	600763	17.10.12	37,500	Administration
Prof. Sourav Roy	602494	05.08.13	98,465	Administration
IABS 2015	605890	29.01.15	1,00,000	Conference
Canon India	1753	30.06.15	15,000	Administration
Scienta Omicron	15772	21.03.17	29,650	Central Scientific
Debajyoti Das	1743	30.06.15	1,32,847	Administration
Eureka Forbes	1745	30.06.15	9,200	Administration
Horiba Jobin Yvon	28201516202	26.12.16	44,426	Central Scientific
Partha Chaudhuri	1761	30.06.15	5,817	Administration
Quantum Global	464834	31.03.16	1,60,300	No Dept.
Prakash Freight	1701	30.06.15	1,69,350	Administration
Prasant Chandra Singh	1712	30.06.15	1,88,947	Administration
Somansu Sekhar Das	457254 & 458795	31.08.15 & 07.10.16	13,000	Administration
Prof. Sourav Roy	1766	30.06.15	8,33,652	Administration
Sysbiosis	1759	30.06.15	1,17,550	Administration
Prof. Tarun Kr. Mondal	457257	01.09.15	50,000	Central Scientific
Uma Service Station	1733	30.06.15	30,000	Administration
National	1705	30.06.15	13,896	Administration
IACS A/c	161700827	27.02.17	75,000	Administration
IACS A/c Registrar	161700575	02.02.17	50,000	Administration
Cryogenic Ltd	28201516214	31.03.17	4,90,288	Central Scientific
Gatan Inc	28201516215	31.03.17	1,46,057	Central Scientific
IACS A/c	8201516403	04.01.17	20,186	Administration
IACS A/c Satrajit	161701529	19.04.17	1,10,000	Administration

- 11) We also observed that Superannuation Fund contributions and Pension Fund contributions made by the IACS General Fund are calculated on adhoc basis. A requisition is sent to the IACS General Fund for payment and it does not show the basis to arrive at the amount which is to be transferred to Superannuation Fund or the Pension Fund. The basis or

calculations to arrive at the amount which is transferred to the Superannuation Fund or the Pension Fund is not prepared or shown by the respective authorities. The Association should take necessary measures to ensure that the respective Authorities, managing the Superannuation and Pension Funds, prepare and authorise the basis or detailed calculations, on the basis of which the respective contributions are to be made from General Fund.

- 12) No Actuarial valuation was carried out for ascertaining the sufficiency of the Science Association Employees Provident Fund, IACS Superannuation Fund and IACS Pension Fund to meet the future liabilities. Necessary initiative should be taken by the authorities to ensure that the valuation of the abovementioned Funds are carried out by the Actuary.
- 13) In case of Project Accounts, balances in certain heads of accounts pertaining to previous years had continued to remain static in the year 2018-19. Necessary steps may be taken to follow-up with the respective Project - In charge and adjust the static balances. Certain instances observed during the course of audit are as follows:

Details	Balance (₹)
DST, DBT-DAE and other projects:	
DST-WOS Quantum... Gases (SD)	(1,887.00)
DST-WOS—Develop.... Hydrogen(SM)	(21,068.00)
Probing....Technique (Priya Rajdev)	6,472.00
DAE/ Probing.....Materials (S. Majumdar)	68,477.27
Developing.....Metallogels (PSD)	(3,66,470.00)
Design.....Renewable Sources (AB)	(29,720.00)
To study.....Drugs (A.Banerjee)	3,05,305.00
The Exploratory visit (G.P.Das)	20,960.00
Conducting Polymer.....Theoretical Simulation (R. Gangopadhyay)	(1,48,600.00)
Study of action filament conformational dynamics	3,90,439.00
Decay dynamics of nanostructured materials.... (A. Patra)	(3,52,569.00)
Molybdenum Containing Enzymes....CO2 reduction	1,70,536.00
Modular synthesis....photo-electrical splitting of water	(1,01,494.00)
To probe functional Bio-interfaces....Molecule level	(64,618.00)
Swarnajayanti Fellowship award....(N.Pradhan)	(38,865.00)
Recyclable magnetic....synthesis	(46,309.00)
Development of p-type transparent conducting oxide film	(60,519.00)
CSIR Projects:	
Looking at histone.....spectroscopy	12,794.00
Pool Officer	(44,532.00)
Conducting Summer School	3,080.00
Designed Ionic Liquids....Nanostructures	(62,432.00)
Award Fellow:	
Sulakshana Mondal	(27,333.00)
B.C.Patra	7,632.00
National Post Doctoral Fellowship – Dr. Nabamita Patra	5,56,585.00
Ramesh Prasad	16,959.00
National Post-Doctoral Fellowship to Dr. C. Dey	9,60,000.00
Ankita Indra	2,23,080.00
Award of C. V. Raman International Fellowship to African Researchers	1,00,010.00

- 14) In case of Project Accounts, there is an instance where advance is pending unadjusted for more than 1 year, which needs to be followed up with the respective party and adjusted. The details are as follows:-

Party Name	Order No.	Name of the Faculty	Amount paid (₹)	Name of Project	Budget Head
Newsport Corporation	IACS-P/ BCAB/ 170301	Dr. Arindam Banerjee	2,53,144.00	SERB/Assembly of..... opto-electronics	Equipment
MKS Instruments	IACS-P/ SSPDB/ 170348	Dr. Durga Basak	89,327.00	SERIIUS-PV-7	Consumables
Hiokii E.E. Corpn	IACS-P/ PSUTKM/ 170352	Dr. Tarun Kr. Mondal	2,29,144.00	SERB / Design..... Application	Consumables

- 15) In the course of examination of Bank Reconciliation Statements of SBI, Jadavpur University branch, relating to Project Accounts, we observed the following cheques were issued for payment, but not debited by bank, lying unadjusted for more than 2 years:-

Cheque No.	Date	Amount (₹)
769803	09.03.15	330.00
770033	24.04.15	3,740.00
768367	28.07.15	7,175.00
NEFT	20.03.17	1,100.00

Necessary steps may be taken by the Institute to adjust the above amounts, or write off the amounts where adjustment cannot be made in case of very old amounts.

- 16) In course of examination of Security Deposit made with the Association, in case of Project Accounts, instances were observed where the amount deposited is lying unadjusted for more than 4 years, which needs to be followed up and adjusted:-

Person/Party	Purchase Order Details	Date	Amount (₹)
Agilent Technologies	11200070 dt 25.06.13	19.11.13	79,360.00
Kunash Instruments	IC/DST-SERB/RM/007/2014-15 dt 5.05.14	05.08.14	2,70,765.00

In our opinion and to the best of our information and according to the explanation given to us, the financial statements, together with the notes mentioned above, give a true and fair view in conformity with the accounting principles generally accepted in India.

- In case of the Balance Sheet of the State of Affairs of the INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE as at 31st March, 2019.
- In case of Income & Expenditure Account, of the Excess of Income over Expenditure for the year ended on that date.
- In case of Receipts and Payments Accounts, of the transactions during the year ended on that date.

Place: Kolkata
Date: 19.07.19

For **K. Sharma & Co.**
Chartered Accountants
FRN - 302045E
UDIN:19005313AAAAAA5926

(K. Chakrabarty)
Partner
Membership No.- 014590

Report on Other Legal and Regulatory Requirements

As required on the above matters, we report that:

- a) We have sought and obtained all the information and explanation which to the best of our knowledge and belief were necessary for the purpose of our audit.
- b) In our opinion proper books of accounts as required by law have been kept by the Association so far as appears from our examination of those books.
- c) The Balance Sheet and the statement of Income and Expenditure dealt with by this report are in agreement with the books of account.
- d) In our opinion, the aforesaid financial statements comply with the accounting standards.

Place: Kolkata
Date: 19.07.19

For K. Sharma & Co.
Chartered Accountants
FRN - 302045E
UDIN:19005313AAAAAA5926

(A. K. Chakrabarty)
Partner
Membership No.- 014590

Note: 1

Significant Accounting Policies, Practice And Control

A. Accounting convention and concept:

The financial statements are prepared under the historical cost convention on accrual basis, excepting retirement benefits, including grants (both recurring and non recurring) from the Government of India and Government of West Bengal.

B. Allocation of Receipts and Payments:

The allocation of Receipts and Payments, Income and Expenditure between plan and non-plan heads have been made by the Association as per Association's budget and practice. Grant from the Government for both Plan & Non-Plan expenditure and Plan & Non-Plan Grant from the Government of West Bengal during the financial year are credited to Income & Expenditure Account, except the Capital grant which has been directly transferred to Corpus Fund.

C. Fixed Assets and Capital Work in Progress:

- i) Fixed Assets and Capital work in progress are stated at cost of acquisition or construction less accumulated depreciation. Cost of acquisition is net of interest on capital advance and is inclusive of freight, duties, taxes & other incidental expenses.
- ii) Capital work in progress including building under construction, plant and machinery, equipment pending installation and architect fees are directly debited to the respective assets head.
- iii) Provision for Stamp Duty payable for immovable property is made as and when conveyance, deed for the properties is executed and the liability is ascertained.
- iv) Grant received towards specific fixed asset are adjusted from the Gross Value of the assets or capital work in progress, as the case may be.

- v) The A/A & E/S amount relating to construction of (G+5) TRC Building amounts to a total of ₹ 25.50 crores, out of which ₹ 5 crores was contributed in the year 2016-17 and ₹ 2 crores was contributed in the year 2017-18 from TRC Project account.

D. Depreciation/ Amortization:

Depreciation on Fixed Assets is provided on “Written Down Value Method” at the rates and in the manner prescribed in the Income Tax Act, 1961. Depreciation on addition of Fixed Assets is considered on half-yearly basis.

E. Impairment of Assets:

An asset is treated as impaired when the carrying amount of assets exceed the recoverable value and impairment loss is charged to the Income and Expenditure Account in the year in which an asset is identified as impaired.

F. Retirement Benefits:

- i) Gratuity of Employee is accounted for on cash basis based on valuation made by the department as per rules and provisions of Payment of Gratuity Act.
- ii) Leave Salary Payable to Employee is accounted for on cash basis based on valuation made as per extent rules of the Association.

G. Subscription for Library:

Subscription paid for library journals are booked to Library Account at the time of payment irrespective of receipt of the related journal.

H. Income From Grants and Other Services:

Grants received from Governments are accounted for as income of the Association.

a) Recognition of Government Grants:

Government Grants available to the Association are considered for the inclusion in accounts in accordance to AS 12, where:

- i) There is reasonable assurance that the Association will comply with the condition attached to them, and
- ii) Such benefits have been earned by the Association and it is reasonably certain that the ultimate collection will be made.

b) Income from Other Services:

Sales proceeds received consultancy and technical service, fees received and interest incomes are also treated as income of the Association.

I. Notes on Accounts:

- i) The Association grants House Building Loans as per laid down principles against suitable documentation at a prescribed rate of interest. Such interest is payable after repayment of the principal amount.
- ii) Fixed Asset register has been written up to 31.03.17. Updating of Fixed Assets is in the process. Physical verification of fixed assets has been carried out on year to year basis.
- iii) No known case of fraud has been there during the year ended on 31.03.19.