



INDIAN



MATHEMATICAL



SOCIETY

INDIAN MATHEMATICAL SOCIETY

(Founded in 1907; Reg. No. S-550, Delhi)

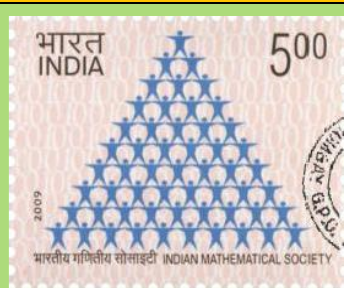
Registered Office: Department of Mathematics,
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NEWSLETTER

NO. 44

August 2020



Facsimile of the Commemorative Postage Stamp on the 'Indian Mathematical Society' issued by the Department of Posts (Philately Division, Government of India, to mark the completion of hundred years of the Society. Released on the Inaugural day of the Platinum Jubilee 75th Annual Conference of the Society on 27th December 2009.

**THE INDIAN MATHEMATICAL SOCIETY (IMS)
NEWS LETTER NO. 44**

August, 2020

**86th ANNUAL CONFERENCE OF THE IMS
AN INTERNATIONAL MEET
(December 17-20, 2020)**

The '86th Annual Conference of the IMS - An International Meet will be held under the auspices of VIT, Vellore, Tamil Nadu during December 17-20, 2020 under the presidentship of Prof. B. Sury, Theoretical Stat. and Math. Unit, Indian Statistical Institute, Bangalore-560 059, Karnataka, India. Prof. Rushi Kumar, Head, Department of Mathematics, VIT, Vellore will be the Local Organizing Secretary of the conference. Correspondence pertaining to arrangements for accommodation etc. at VIT, Vellore. during the Conference should be addressed to Prof. Rushi Kumar. His e-mail address is *rushikumar@vit.ac.in*

CALL FOR CONTRIBUTORY PRESENTATIONS AND POSTER PRESENTATIONS :

IMS invites contributory presentations as well as Posters (related to Symposia theme) for its 86th Annual Conference - an International Meet.

- (1) Contributors should send the Abstract of the paper in the following format electronically (in .pdf format) to the Academic secretary, Prof. Peeyush Chandra (email: *acadsecrims@gmail.com*) so as to reach him not later than October 31, 2020. Contributions received after the due date may not be considered.

Note that full length papers are not required to be submitted, however the contributors must bring a copy of the paper during the conference and give it to the Chairperson of the session.

- (2) **FORMAT FOR THE ABSTRACT**

The Abstract should be brief and should not exceed 250 words. The use of formula and symbols should be kept minimum and should be in the following format:

{Title of the paper}

{Name of the Author(s)}

{Institution(s)}

{Name of the Presenter}

{E-mail address for Correspondence}

{Section*}

{Abstract}

- (3) Every paper submitted for presentation should be classified, as far as possible, according to the following classification scheme/codes.

* IMS Subject Classifications

- (A) Combinatorics, Graph Theory, Logic, Discrete Mathematics etc.
- (B) Algebra, Number Theory, Lattice Theory and History of Mathematics.
- (C) Real and Complex Analysis (including Special Functions, Summability and Transforms etc) and Teaching of Mathematics.
- (D) Functional Analysis, Measure Theory, Probability Theory and Stochastic Processes, and Information Theory.
- (E) Differential / Integral / and Functional Equations.
- (F) Geometry and Topology.
- (G) Numerical Analysis, Approximation Theory and Computer Science.
- (H) Solid Mechanics, Fluid Mechanics, Astrophysics and Relativity, and related areas.
- (I) Mathematical Modelling, Bio-Mathematics, Operations Research etc.

Every author intending to present a paper should either be a member of the Society or should register himself / herself as a Sessional Member. In the case of joint authors, both the authors must be either members or should become Sessional Members. Non-members wishing to become Annual members can do so by paying Rs. 300/-. Those wishing to become Sessional Members can also do so by paying Rs. 300/-. The amount can be paid by cheque/NEFT in favor of “Indian Mathematical Society”. The cheque should be sent to Prof. S. K. Nimbhorkar, The Treasurer, The Indian Mathematical Society, C/O. Dr. Mrs. Prachi Kulkarni, Ankur Hospital, Tilaknagar, Aurangabad-431 001 (MS), India, so as to reach him by November 15, 2020. In case of NEFT, the required bank details may be taken from Prof. S. K. Nimbhorkar by communicating with him via email sknimbhorkar@gmail.com. After this date, applications for becoming a Sessional member will be accepted only at the venue of the Conference at VIT Vellore during December 17 – 20, 2020.

Acceptance of a paper for presentation does not automatically imply its acceptance for publication in the Journal of the Indian Mathematical Society or in The Mathematics Student. In case an author wants a paper to be considered for publication in either of these periodicals, he/she should submit the same separately to the Editor concerned.

Award of Various Prizes

The Indian Mathematical Society awards the following prizes.

A. P. L. Bhatnagar Memorial Prize.

This Prize is awarded annually to the top scorer of the Indian Team at the International Mathematical Olympiad. It consists of a cash prize of Rs. 1000/- and a Certificate. The Prize is presented during the Inaugural Session of the Annual Conference of the Indian Mathematical Society.

B. A. Narasinga Rao Memorial Prize.

This Prize is awarded to the author of the best research paper published in the Journal of the Indian Mathematical Society or The Mathematics Student.

The Prize is recommended by a committee consisting of The Academic Secretary, Indian Mathematical Society, Editor, Journal of the Indian Mathematical Society and the Editor, The Mathematics Student. The Prize is awarded during the Inaugural Session of the Annual Conference of the Indian Mathematical Society.

The following conditions apply:

1. The research paper must be under authorship of at most two authors,
2. The research work must have been carried out in India,
3. The upper age limit of the awardee should not be more than 45 years as on the date of receipt of the paper by the Editor.
4. In case the prize is awarded to a paper with two authors then the prize money will be jointly awarded and younger of the authors will be invited to make a presentation of the paper.
5. The prize will consist of a citation and a cash amount of Rs 4000/-.

C. A. K. Agarwal Award for Best Publication.

The Indian Mathematical Society (IMS) has instituted A. K. Agarwal Award for best research paper published (in any Journal) in the areas of Number Theory, Combinatorics, Discrete Mathematics, Analysis and Algebra. The corpus fund of Rs. 1.5 lakh for this award has been made available to the Indian Mathematical Society (IMS) by Prof. A. K. Agarwal, Center for Advanced study in Mathematics, Punjab University, Chandigarh (India). The award consists of a citation and a cash prize of Rs. 10,000/- (Rs. Ten Thousand) and will be given in the inaugural function of the Annual conference of the Indian Mathematical Society. The prize amount may change depending on the bank interest rate. The Award is given every year.

(The last date for this year's award is already over.)

D. A. M. Mathai Award for Best Publication in Applicable Mathematics.

This award is given for best research paper published in the area of mathematics which has some applications in other fields such as Physical Sciences, Engineering Sciences, Biological and Medical Sciences, Social Sciences, Probability and Statistics. The corpus fund for this award (Rs. 5 lakh) is made available to the Indian Mathematical Society (IMS) by Prof. A. M. Mathai, Director, Center for Mathematical and Statistical Sciences, Peechi, Kerala and Emeritus Professor, MacGill University, Canada. The award consists of a certificate, to and fro travel (A. C. II tier Train fare) to the venue of the annual meeting and a cash prize of Rs 30,000/- (Rs. Thirty Thousand). The amount of the prize may change depending on the rate of interest given by bank.

(The last date for this year's award is already over.)

E. Satish Bhatnagar Award for best paper in the area of History of Mathematics.

The award is given for best publication in the area of History of Mathematics focusing on a person, problem, region, or system of education or government. The paper should be in single authorship. In exceptional cases, the paper by two authors is considered. In this event, the prize amount is equally divided. The minimum age limit for this award is 35 years as on 31st December of the year of award and there is no limits of citizenship.

The award consists of a citation and a cash prize of Rs. 5,000 – 15,000/- (Rs. Five to Fifteen thousand only). (Flexibility is important to the extent that ideally, no year be a blank year). The awardee is paid traveling allowance to the extent of II AC rail fare from the place of residence in India to the venue of the Annual Conference and back. The prize amount will change depending on the rate of interest given by the bank on the corpus fund. Prof. Satish Bhatnagar, Department of Mathematical Sciences, University of Nevada, Las Vegas, NV 89154 – 4020, USA donated corpus fund of Rs. 2 lakh for this award.

(The last date for this year's award is already over.)

F. Life Time Achievement Award for Research and Services to the IMS.

This award is given to a mathematician who has rendered highly dedicated service to the cause of the IMS in various capacities besides research contributions not less than 25 research papers published in international reputed journals and at least two published in the periodicals of the Indian Mathematical Society in his/her area of mathematics. The Selection Committee for this award consists of all the members of the Academic Planning Committee of the IMS.

G. Various Prizes for Research Paper Presentation.

In order to encourage and inspire the young and budding research workers, the Society holds, during its Annual Conferences, a Special Session of Paper Presentation Competition for various Prizes to be awarded to the best research papers presented. This Special Session is held as a part of the Academic Programme with no other parallel session.

The following are the areas and the groupings for these prizes:

1. **IMS Prize-group-1:** Discrete Mathematics (Combinatorics, Graph Theory, Posets), Lattice Theory, Set Theory, Logic, Number Theory and related areas.
2. **IMS Prize-group-2:** Algebraic Geometry, Geometry, Topology, Algebraic Topology, and related areas.
3. **IMS Prize-group-3:** Measure Theory, Probability Theory, Stochastic Processes, and related areas.
4. **IMS Prize-group-4:** Differential / Integral / Functional equations and inequalities, Special Functions, Numerical Analysis and related areas.
5. **IMS Prize-group-5:** Solid Mechanics, Fluid Mechanics, Electromagnetic Theory, Magneto- Hydrodynamics, Astronomy, Astrophysics, Relativity and related areas.
6. **IMS Prize-group-6:** Operations Research, Optimization, Computational Mathematics, Information Technology, Bio mathematics, History of Mathematics and related areas.

AMU Prize: Algebra, Differential Geometry and Functional Analysis.

V. M. Shah Prize: Real Analysis, Complex Analysis, Fourier Analysis, Harmonic Analysis, Approximation Theory and related areas.

Three / Four judges are appointed by the Council for the “Paper Presentation Competition” for deciding the award of various Prizes. Each of these eight prizes listed above carries a Certificate and a cash amount of Rs. 1000/-.

The following conditions apply:

1. Only the Members of the Society are eligible for participation in the Competition.
2. The upper age limit of a candidate for participation in the Competition is 40 years as on December 31 of the respective year.
3.
 - a. The paper to be presented for the competition has to be under single authorship.
 - b. Independent work at the post-doctoral level is preferred.
 - c. The work must have been carried out in India.
 - d. Stress will be on both, quality of research as well as performance during the presentation.
 - e. The author should give a declaration that the work is unpublished and has not been submitted for competition anywhere else. In case of research scholars, the supervisor should verify that the work has been carried out independently.
4. Soft copy of the full paper with the Abstract (prepared in the format as given on page no.1 with Prize Category as given in the section classification) **in its electronic version (.pdf and .tex format)** should reach Prof. Peeyush Chandra on the e-mail address given earlier not later than **September 15, 2020**. Candidates should also submit their latest CV and

the proof of their age (scanned copy of high school certificate will do) along with the paper. Papers should be typed in double space and should be accompanied by an Abstract prepared as per the instructions and format given for Contributory Presentations.

Note: One who is already awarded a prize in a certain area in the past is not expected to participate in the competition for the prize in the same area.

An appeal:

All the Heads of the Departments / Institutions and the Research Supervisors are requested to encourage their research students for participation in this Competition.

Periodicals published by the Society

The Society publishes two periodicals - *The Journal of the Indian Mathematical Society* (JIMS; ISSN (Print): 0019 – 5839, ISSN (Online):2455 – 6475) and *The Mathematics Student* (Math Student; the Mathematics Student; ISSN 0025 – 5742), Both of our periodicals are in the UGC list of approved journals. These are also indexed by MathScinet, Zentralblatt and Scopus(JIMS is already there in Scopus and Math Student is in the pipeline for being included).

- * *Only the research papers of high quality* are published in the Journal
- * Ordinarily the following is published in The Mathematics Student :
 - the texts of Presidential Addresses, the Plenary talks and the Award Lectures delivered at the Annual Conferences,
 - the texts of the invited talks delivered at the Annual Conferences,
 - research papers, and
 - Expository & Popular articles, Book Reviews, Reports of the IMS Sponsored lectures, etc.

Copyright: Copyright of the articles published in the Journal or the Student lies with the Indian Mathematical Society.

For Manuscript Submission, Manuscript Style, instructions to authors etc. refer to the website of the the IMS.

There are **no page charges** for publications in the Journal as well as in the Mathematics Student. However, **if author(s)** (whose paper is accepted for publication in any of the IMS periodicals) **is (are) unable to send the LaTeX file of the accepted paper, then a charge of Rs.100/- (\$ 10) per page will be levied for LaTeX typesetting charges.**

Subscriptions

(i) Subscription of the Journal of the Indian Mathematical Society and The Mathematics Student.

For each periodical

- (a) For libraries of educational Institutions in India
 - (i) Direct subscription Rs.2000.
 - (ii) Subscription through an agent Rs.2500, agency discount 15%. Name and address of the institute is necessary.
- (b) For foreign subscription US \$200, agency discount 15%.
- (c) For agents who do not provide name of the subscriber Rs.10,000, agency discount 20%.

Each issue of The Mathematics Student is provided to the members by sending them at their E-mail address a link to the latest published issue which can be accessed by the members anytime and anywhere for their personal use. No hard copy of this periodical will be sent to the Members. Those Members who have not registered their e-mail address are requested to register it on <imsgoesgreen@gmail.com>. It may please be noted that the contents of The Mathematics Student will continue to be available on the Society's website www.indianmathsociety.org and a physical copy of The Mathematics Student will continue to be available at the IMS Library (Ramanujan Institute of Advanced Study in Mathematics, Madras University, Chennai) as well as at the Registered Office of the Society (Department of Mathematics, Savitribai Phule Pune University, Pune - 411007) for reference during office hours.

Membership of the Society

- (a) For Indian citizens:
 - (i) Life Membership Rs.2500,
 - (ii) Annual / Sessional Membership Rs.300.
 - (b) For foreigners:
 - (i) Life Membership US \$150.
 - (ii) Life Membership for members with Societies having Reciprocity arrangement with IMS US \$100.
 - (iii) Life Membership for people from SAARC countries US \$50.
 - (iv) Annual / Sessional Membership US \$15.
- *Membership form is available on the IMS website.*

Business Correspondence and Payments:

All business correspondence be addressed to Prof. S. K. Nimbhorkar, The Treasurer, The Indian Mathematical Society, C/O. Dr. Mrs. Prachi Kulkarni, Ankur Hospital, Tilaknagar, Aurangabad-431 001 (MS), India. All payments are to be made to Treasurer, IMS by DD drawn in favor of “**The Indian Mathematical Society**” payable at **Aurangabad** (Maharashtra), India at the address mentioned above.

Member in good standing:

A member is considered to be of good standing in a particular year if he/she has paid his/her Membership fees by **July 31** of that year.

IMS Library

The Indian Mathematical Society Library is housed in the Campus of the Ramanujan Institute for Advanced Study in Mathematics, University of Madras, Chennai - 600005 ever since it was shifted from Pune.

The Library receives many journals on Exchange basis and has a rich collection of back numbers of reputed mathematical journals received from all over the world. The complete catalogue of the back volumes of all the periodicals published by the Society as well as those received in exchange by the Society and available in the IMS Library, Chennai, is now displayed on the IMS website. There is a spate of request for photocopies of articles published in these journals and the Library attends to these demands promptly. If a particular journal is not available in the IMS Library, the scholars / students are requested to contact other Libraries where it is likely to be available providing them with the addresses of those Libraries.

The address of the IMS Library is:

The Indian Mathematical Society Library,
The Ramanujan Institute for Advanced Study in Mathematics,
University of Madras, Chepauk, Chennai - 600005.
Phone : (O) + 91 - 44 - 25360357
E-mail: riasmlibrary2010@gmail.com

For further information one may contact Prof. Mrs. Sushma Agrawal, Director, Ramanujan Institute for Advanced Study in Mathematics, University of Madras, Chennai, who is the Honorary Librarian for the Indian Mathematical Society Library.

NOMINATIONS FOR ELECTION TO THE COUNCIL OF THE SOCIETY

The Council has made the following nominations for elections to the Council:

The Council nominated Prof. Dipendra Prasad, Department of Mathematics, Indian Institute of Technology, Bombay, Mumbai for the election to the office of the President of the Society for a period of one year w. e. f. April 1, 2021.

The council nominated Prof. Veeramani (IIT, Madras), Prof. Pankaj Jain (South Asian University, New Delhi) and Prof. Jitendra Kumar (IIT, Kharagpur) for election of members of the Council for three years beginning from the year April 1, 2021.

A member (in good standing) of the IMS can contest for membership to the Council of the IMS or to any other office for which there is a vacancy may do so by following

the procedure laid down in the following TWO paras, may approach to the Returning Officer, Prof. B. N. Waphare, Department of Mathematics, Savitribai Phule Pune University, Pune - 411007, Maharashtra, India on or before September 30, 2020.

In the context of (h) of the constitution of the IMS. If a member wishes to contest for any office of the council or as a member of the council (wherever applicable) his/her nomination should be supported by at least TEN life members individually and separately with the mention of their exact names as well as their exact unique membership numbers as per records of the IMS so as to reach the returning officer not later than September 30, 2020. Nominations submitted in the manner indicated above shall be considered valid nominations. There shall be a scrutiny of the nominations in the light of above rule by the Returning officer.

In the context of (i) of the constitution of the IMS. The nominations made by the council with an indication made to that affect, together with other valid nominations made by the members of the society (following the procedure mentioned in the above para) shall be sent through e-mail by the Returning officer on the registered E-mail addresses of members of good standing of the society not later than October 12, 2020. The members should take a print out, complete the formalities and send it by registered post to the Returning officer so as to reach him latest by November 8, 2020. The following (j) and (k) are modified in the lines of the constitution of the IMS for the purpose of information only.

(j) The Returning Officer shall collect all the ballot papers returned to him/her by the members up to November 15, 2020 and carry them to the venue of the Annual Conference, where they will be opened and counted by him in the presence of a Committee consisting of the President (or his nominee) and the three Secretaries. A simple majority shall determine the result of the election (in each case, the same determined by lot in case of equality of votes)

(k) The list of newly elected officers and additional members of the Council shall be announced at the General Body meeting held during the Annual Conference. The new Council shall assume charge of its office with effect from April 1, 2021.

A member will be considered to be of good standing if his/her membership fee (either life or Annual) is paid on or before July 31, 2020.

Minutes of the General Body Meeting

The 85th Annual General Body Meeting of the Indian Mathematical Society was held on Monday, the 25th November, 2019 at 12 noon in the Gargi Seminar Hall of IIT, Kharagpur, West Bengal. In the absence of the President, Prof. S. Arumugam, the General Secretary Prof. Satya Deo welcomed all the members present and took up the agenda items as follows:

Item No. 1. To confirm the Minutes of the General Body meeting held on Friday, the 30th November, 2018 at 12 noon in the Meeting Hall of Shri Mata Vaishno Devi University, Katra, Jammu and Kashmir under the president ship of Prof. Sudhir Ghorpade. Since no comments were received from any member of the Society, the Minutes of the General Body meeting held on November 30, 2018 at 12 noon at Shri Mata

Vaishno Devi Univesrsity, Nammu and Kashmir were conrmed.

Item No. 2: To receive the report of the General Secretary, Prof. Satya Deo: Report of the General Secretary:

- (i) The IMS Newsletter No 41 of March 2019 (prepared by Prof. N. K. Thakare, the retiring GS) was sent to all members of the IMS and uploaded on our website. The Newsletter no 42 of Aug 2019 was finalized by the General Secretary Prof. Satya Deo with the help of Administrative Secretary Prof. B. N. Waphare. These newsletters were uploaded on the IMS website by Prof. J. R. Patadia. The soft copies of the newsletters were sent to all members of the Indian Mathematical Society. Announcements of various Memorial Prize winners as well as the IMS Award winners of 2019 were made as soon as possible and they were uploaded on the IMS website for the benefit of members of the IMS and others.
- (ii) The meeting of the Academic Planning Committee (APC) of the IMS was held at the Department of Mathematics, S. P. University, Pune on June 9, 2019 from 11 am onward. All the necessary arrangements were made by the Administrative Secretary Prof. Waphare. The meeting was presided by the President of IMS Prof. S. Arumugam and all members (except the past President Prof. Sudhir Ghorpade, who was abroad) including Prof. Raja Sekhar, were present. The names of the five memorial Award lecturers, plenary speakers and conveners of various symposia were finalized. The academic secretary was requested to send invitation letters to all concerned and if some changes were needed, he was authorized to contact alternatives in consultation with the General Secretary Prof. Satya Deo and finalize.
- (iii) The General Secretary kept in constant touch with the local organizing secretary Prof. Raja Sekhar and the Academic Secretary Prof Peeyush Chandra for providing any kind of help/guidance requested by them.
- (iv) Narasinga Rao Memorial Prize: A committee consisting of Prof. Peeyush Chandra (convener), Prof. Sudhir Ghorpade, Prof. M. M. Shikare was constituted to recommend the Narasinga Rao Memorial Prize for the best paper published in the JIMS or MS in the year 2018. In the absence of Prof. Sudhir Ghorpade, Prof. Shriram Nimbhorkar was also included in the committee. In view of the terms and conditions of the award, the committee recommended that since no author could fulfill the conditions, the prize cannot be awarded
- (v) P. L. Bhatnagar Memorial Prize: The prize for this year has been given to the top scorer of the Indian Team of International Math Olympiad Mr Pranjali Srivastava of Bangaluru, who also won a gold medal in the competition. The IMO was held at BATH, UK during July 11-22, 2019. A letter was sent to Pranjali Srivastava requesting him to be present during the inaugural function of the annual session of IMS at IIT, Kharagpur. He accepted the award and informed that he will come to receive the prize. However, he fell ill at the eleventh hour due to the viral fever and could not come. His prize will be sent to him by post.
- (vi) A. K. Agarwal Award: For this Award, only two applications were received. One of the applications was in an applied mathematics area, and according to the

terms of the award, that paper cannot be considered. The other paper was in number theory. Three referees were appointed to evaluate this paper and all of them recommended that the paper is quite suitable for the award. Accordingly, Dr G. Kashi Viswanadham of IISER, Berhampur, Odissa has been awarded the A. K. Agarwal Award of 2019 for his paper entitled Products of weighted multiple zeta functions published in Bulletin des Sciences Mathematiques, Vol 147 (2018) pp 26-39. A letter was sent to him giving this information and also asking him to be present during the annual session of the IMS at Kharagpur. He accepted the award and informed that he will come to the annual session to accept the award, and he came.

- (vii) A. M. Mathai Award: No papers were received or nominated this year for this Award and so the Award has not been given to anyone. A letter received from Prof. Mathai in this connection was placed before the Council. The Council decided that the same committee as for Narsinga Rao prize, will also suggest ways so that there are enough applications for this award and the prize is given to someone for the best paper.
- (viii) Satish Bhatnagar Award: This year, only one joint paper was nominated by Prof. Amartya Datta of ISI, Kolkata. Prof. S. G. Dani, Prof. M. D. Srinivas and Prof. R. Sridharan were appointed referees to see if the paper is really of exceptional quality for the Satish Bhatnagar Award. All of them stated that the paper is exceptionally outstanding and recommended both the mathematicians for the joint award. Accordingly, the Award has been given to Prof.s C. Montelle and K. Ramasubramaniam jointly on their paper entitled Determining the Sine of one degree in the Sarvasidhantraja of Nityanand published in SCIAMVS, Vol. 19(2018)pp. 1-52. The winners of the award were informed and both the Professors wrote back accepting the award. Prof. Ramasubramaniam indicated that he will come to the annual session of the IMS to receive the award, and he came.
- (ix) During this period more than 138 life members and about 40 sessional members were enrolled for the IMS conference at IIT, Kharagpur. This information was given by the treasurer of IMS and the local secretary of the IMS respectively.
- (x) I am in constant touch with Prof. J. R. Patadia to update, maintain and improve the IMS website. The website has the unique permanent ID of every member along with his/her name and the place. Other details of the member like the address, email and phone etc. is not uploaded to keep their privacy intact.
- (xi) The old proposal of the IMS for having a piece of land for its permanent headquarters in Pune got a good start this year. Office bearers based at Pune like Prof. M. M. Shikare and Prof. B. N. Waphare, under the guidance of Prof. N. K. Thakare, searched and found a suitable plot for the IMS headquarter. Prof. Peeyush Chandra and Prof. Nimbhorkar also saw the plot. This matter has been considered in detail in the Council of the IMS and a suitable decision has been made to purchase the land. The initial agreement for the purchase of the plot measuring about 32,000 sq.ft. at the approximate cost of Rs 1,60,00,000=00 has been signed and an advance of Rs 50, 000=00 has also been paid.

Acknowledgements:

The General Secretary thanks Prof. B. N. Waphare, the Administrative Secretary, for his help in the preparation of the IMS Newsletters. He also thanks Prof. J. R. Patadia for maintaining the IMS website and uploading newsletters and various other announcements of the IMS from time to time.

Item No. 3 : To receive the Report of the Academic Secretary, Prof. Peeyush Chandra:

Report of the Academic Secretary.

Based on the deliberations during the APC meeting held on June 9, 2019 at SP Pune University, Pune and subsequent consultations with the General Secretary following speakers have been finalized.

Plenary Speaker:

Prof. Gadadhar Misra (IISc. Bangalore) : A Product Formula for Homogeneous Characteristic Functions

Memorial Award Lectures:

1. 33rd P. L. Bhatnagar memorial Award Lecture: Prof. Mythily Ramaswamy (TIFR, CAM) : An invitation to Control of Differential equations
2. 30th Hansraj Gupta Memorial Award Lecture: Prof. Gurmeet Bakshi (Panjab University) : Can we explicitly describe the structure of rational group algebras?
3. 30th Ramanujan Memorial Award Lecture: Prof. Pratulananda Das (Jadavpur University) : Non-negative summability matrices and ideals
4. 30th RamaswamyAiyer Memorial Award Lecture: Prof. Swagato K. Ray (ISI Kolkata) : Quasianaliticity of functions and an uncertainty principle of Fourier analysis
5. 14th Ganesh Prasad Memorial Award Lecture: Prof. Kaushal Verma (I.I.Sc, Bangalore) : An introduction to quadrature domains

Invited speakers:

1. Prof. Ramji Lal (Allahabad University) : Schur Multiplier and Milnor K-Theory.
2. Prof. Ashish Upadhyay (IIT Patna) : Centrally symmetric manifolds.
3. Prof. C. S. Dalawat (HRI, Prayagraj) : Two footnotes to Galioss Memoirs.

4. Prof. A Lakshmi Narayana (IIT Hyderabad) : Recent developments in matrix special function theory.
5. Prof. Rafikul Alam (IIT Guwahati) : Perturbation analysis of discrete spectra of analytic operator-valued functions.
6. Prof. Anand Srivastava (CAU Kiel Germany) : A New Bound for the Maker Breaker Triangle Game.

Symposia:

1. Group Theory
Convener : Prof. N. S. .N Sastry (IIT Dharwad)
Speakers : K. N. Raghavan, IMSc, Chennai, Anupam Kumar Singh, IISER, Pune, Shripad M. Garge, IIT, Bombay, Manoj Kumar Yadav, HRI Allahabad, Ravindra Prasad Shukla, Allahabad, University, N. S. N. Sastry IIT Dharwad
2. Theoretical and Computational Biology
Convener : Prof. P. K. Srivastava (IIT Patna)
Speakers : Malay Banerjee, IIT Kanpur, A. K. Misra, BHU Varanasi, Pranay Goel, IISER Pune, BSRV Prasad, VIT Vellore, P. K. Srivastava, IIT Patna.
3. Ramanujan and Mathematical Analysis
Convener : Prof. S Ahmad Ali (BBD University, Lucknow)
Speakers : A. K. Agarwal, Punjab University, M. A. Pathan A M U, Aligarh , Kalyan Chakraborty, HRI Prayagraj, Atul Dixit I I T, Gandhinagar, S. Ahmad Ali, BBD University, Lucknow.
4. Combinatorics on Finite Sets
Convener : Prof. B. N. Waphare (S. P. Pune University, Pune)
Speakers : S. Sivaramakrishnan IIT, Bombay, Anirban Banerjee, IISER Kolkata, M. M. Pawar, SSVPS, Dr. P. R. Ghogare Science College, Dhule, Vinayak Joshi, S. P. Pune University, V. S. Kharat S. P. Pune University, B. N. Waphare, S. P. Pune University.
5. Recent Trends in Differential Geometry
Convener : Prof. M. M. Tripathi (BHU Varanasi))
Speakers : M Hasan Shahid, Jamia Milia Islamia University, New Delhi, Shiv Sharma Shukla, Univ of Allahabad, D. G. Prakasha, Davangere Univ. Davangere, Gauree Shanker Central University of Panjab, Bhatinda, M. M. Tripathi, BHU, Varanasi.

6. Higher Mathematics Education in India

Convener : Prof. S. Kumaresan(IIT Kanpur)

Speakers : B. K. Sarma IIT Guwahati, Ajit Kumar ICT Mumbai, Sudhir Ghorpade IIT Bombay, V. Sholapurkar SP College Pune, S. Kumaresan IIT Kanpur.

The Conveners for various symposia have finalized the speakers in each case. An event of School Children Meet is going to be organized this year with Prof. G. P. Raja Sekhar as coordinator.

This year total of 160 papers have been received out of which 14 papers are for Prizes (3 for AMU Prize, 2 for V. M. Shah prize, 1 for Gr. 1, 2 for Gr. 2, 1 for Gr. 4, 3 for Gr. 5 and 2 for Gr. 6), Apart from this, about Five papers had been rejected. No paper was received for Posters this year.

I am thankful to the General Secretary for his suggestions at various stages in finalizing the speakers.

Item No. 4: To consider the Audited Statement of Accounts for the year 2018 -2019 and budget for the year 2020- 2021. The Audited Statement of Accounts for the year 2018- 2019 and budget for the year 2020- 2021 presented by the Treasurer, Prof. S. K. Nimbhorkar were approved.

Item No. 5. To receive the report of the Editor, Prof. Sudhir Ghorpade, the Journal of the Indian Mathematical Society for 2019. Report of the Editor, the Journal of the Indian Mathematical Society for 2019.

Manuscript status:

(a) Number of manuscripts pending with the referees/ under process at the end of 2018 :	20
(b) Number of manuscripts received during 2019:	80
Total:	100
(a) Number of manuscripts accepted in 2019:	20
(c) Number of manuscripts not accepted in 2019	20
(d) Number of manuscripts with the referees/ under process:	60
Total:	100

Publication Status (online by the IPL)

(a) Volume 86 (1-2) 2019 of the JIMS published in Nov 2018.

(b) Volume 86 (3-4) 2019 of the JIMS published on July 1, 2019.

(c) Volume 87 (1-2) 2020 of the JIMS is expected to be published online in Jan 2020.

Publication Status (Print by the IMS)

(a) Volume 86 (1-2) 2019 of the JIMS was published in Dec-Jan 2019 and has been sent to the subscribers.

(b) Volume 86 (3-4) 2019 of the JIMS is now published and it is being sent to the subscribers by the Administrative Secretary, IMS in November-December 2019.

(c) Volume 87 (1-2) 2020 of the JIMS is expected to be published in February 2020.

Acknowledgements:

The Chief Editor, JIMS expresses his sincere thanks to numerous referees and the members of the Editorial Board, JIMS, especially Prof. Peeyush Chandra and Prof. Ravi Agarwal, for their help in refereeing and/or processing the manuscripts received for JIMS. He also records his sincere thanks to Prof. B. N. Waphare for extending all possible help in printing and dispatching copies of the JIMS to the subscribers of the Journal. He is also very grateful to Prof. Satya Deo for able guidance and to Prof. Shriram Nimbhorkar for excellent overall help in various matters related to the JIMS.

Item No. 6: To receive the report of the Editor of The Mathematics Student for 2019, Prof. M. M. Shkare Report of the Editor of the Mathematics Student for 2019. Publication Status of the Journal

The Volume 88 (Nos. 1-2) January-June, 2019 of the Mathematics Student has been published in June 2019. The soft copy of the issue is sent to all the life members of the IMS by e-mail. The camera ready copy of Volume 88 (Nos. 3-4) July-December, 2019 of the Mathematics Student is ready and is forwarded to Parshuram Process, Pune for printing. The printing will be completed by first week of December 2019. The soft copy of this issue will be sent to the life members of the IMS by e-mail soon. The soft copies of both the issues have been uploaded on the website of the Indian Mathematical Society. Status of the Manuscripts

In all 60 research papers have been received by the Chief Editor for publication in the Mathematics Student till November 14, 2019. Out of these 60 research papers, 23 papers have been accepted for publication in the journal, 17 papers were not accepted, 15 papers are pending with referees and 5 papers are under process.

Recently the University Grants Commission (UGC) has included the Mathematics Student in the list of the UGC approved journals.

Attempts are being made to bring the journal in the list of Scopus Indexed Journals. Scopus is Elseviers abstract and citation database launched in 2004. We have received the indication that the Mathematics Student will get this status in a short period of time.

Digitization of Back Volumes

We propose to digitize the back volumes of the Mathematics Student with the help of Informatics Publishing Limited, Bangalore. The back volumes of the journal can be made available from the IMS library, Chennai and the Library of the Savitribai Phule Pune University, Pune.

Acknowledgements:

We take this opportunity to put on record our sincere thanks and gratefulness to the Members of the Editorial Board and the learned referees for their continuous support and assistance in our sustained efforts for timely publication of the Mathematics Student. We would like to thank Prof. George E. Andrews, Prof. M. Ram Murty and Prof. B. Sury for proposing Problems for the Problem section, verifying solutions received from researchers and providing solutions to unsolved problems.

We are grateful to Prof. J. R. Patadia for typesetting the papers and sending soft copies of the journal to the life members of the IMS and the General Secretary Prof. Satya Deo for reading the camera ready copies of the issues carefully. We are also thankful to the Administrative Secretary Prof. B. N. Waphare for getting the issues printed from Parshuram Process, Pune and preserving the hard copies of the journal in the library of the Mathematics Department of S. P. Pune University, Pune. (PS. : On 25/11/2019 we received an e-mail from the Scopus Title Evaluation Team stating that The review of the Mathematics Student by Content Selection and Advisory Board (CSAB) is complete and the CSAB has advised that the Mathematics Student will be accepted for inclusion in Scopus. This is really a great achievement.)

Item No 7. To consider the venue of the 86th Annual session of the Society to be held in December 2020.

There were four proposals to host the next annual conference of the IMS. The Council accepted the firm invitation from the Registrar (Director), Vellore Institute of Technology (VIT), Vellore, Tamil Nadu, for organizing the 86th Annual Conference of the Indian Mathematical Society. The 86th Annual Conference of the IMS will be held at VIT, Vellore, Tamil Nadu during December 17-20, 2020. Prof. Rushi Kumar, Head, Department of Mathematics, VIT, Vellore will be the Local Organizing Secretary of the conference. Suitable regret letters will be sent to the remaining organizations thanking them for their proposals to host the annual session of the IMS

Item No 8. Announcement of the results of the following elections.

(i) President for 2020-2021; (ii) Three members of the Council for a period of three years w. e. f. April 01, 2020.

Returning officer Prof. Waphares Report: The Council of the Indian Mathematical Society (IMS), at its meeting held in November 2018 at Shri Mata Vaishno Devi University, Katra, Jammu and Kashmir made the following nominations to the Office of the President of the Society and to the Council of the IMS.

The Office of the President : The Council nominated Prof. B. Sury, Theoretical Stat. and Math. Unit, Indian Statistical Institute, Bangalore for election to the Office of the President of the Society with effect from April 01, 2020. No other nominations have been received from the members of the IMS for election to the office of the President. Therefore no election was held and Prof. B. Sury is declared elected unopposed to the office of the President of the IMS for one year with effect from April 01, 2020.

Election of members to the Council of the Society : The Council made the following nominations as members of the Council of the Society with effect from April 01, 2020. 1..Prof. A. K. Das (Shri Mata Vaishno Devi University, Katra, Jammu). 2. Prof. N. D. Baruah (Department of Mathematical Sciences, Tezpur University, Assam). 3. Prof. G. P. Youvaraj (Ramanujan Inst. For Advanced Study in Mathematics, Uni. of Madras, Chennai).

Item No 9. Any other item with the permission of the chair. No other item was under consideration. The efforts put in by the Local organizing Secretary Prof. G. P. Raja Sekhar, his colleagues and the IIT Kharagpur administration for successful organization of the conference were appreciated by the office bearers and the members

of the IMS. The Meeting ended with a vote of thanks to the Chair and members of the IMS, Prof. G. P. Raja Sekhar, his colleagues and the IIT Kharagpur administration.

Prof. Satya Deo
General Secretary
Indian Mathematical Society

NOTICE OF THE ANNUAL GENERAL BODY MEETING

The Annual General Body Meeting of the Indian Mathematical Society will be held on December 20, 2020 at 12 noon in the Department of Mathematics, VIT to consider the following agenda.

All the members of the Society are requested to kindly attend the meeting.

AGENDA

1. To confirm the Minutes of the General Body Meeting held on November 25, 2019 at IIT Kharagpur, Kharagpur.
2. To receive the report of the General Secretary.
3. To receive the report of the Academic Secretary.
4. To consider the Audited Statement of Accounts for the year 2019 – 2020 and the Budget for the Financial Year 2021 – 2022.
5. To receive the report of the Editor of the Journal of the Indian Mathematical Society for 2020.
6. To receive the report of the Editor of the Mathematics Student for 2020.
7. To consider the venue of the 87th Annual Session of the Society to be held in December 2021.
8. Announcement of the results of the following elections:
 - (i) President for 2021 – 2022;
 - (ii) Three members of the Council for a period of three years w. e. f. April 01, 2021.
9. Any other item with the permission of the chair.
(Members in good standing are entitled to exercise vote.)

Satya Deo
General Secretary, IMS.
HRI, Allahabad

**Highlights of the Academic Programme of the ensuing
Conference at VIT during December 17 – 20, 2020**

Plenary Talks:

- (i) Prof. M. S. Raghunathan, CEBS, Mumbai
- (ii) Prof. Harald Upmeyer (University of Marburg, Germany)

Memorial Award Lectures:

- (i) 34th P. L. Bhatnagar Memorial Award lecture: Prof. Neela Nataraj, IIT Mumbai
- (ii) 31st Srinivasa Ramanujan Memorial Award Lecture: Prof. Anish Ghosh, TIFR Mumbai
- (iii) 31st Hansraj Gupta Memorial Award lecture: Prof. Dinesh Khurana, Panjab University
- (iv) 31st V. Ramaswamy Aiyer Memorial Award Lecture: Prof. Sanoli Gun, IMSc Chennai

Invited Talks :

- (i) Prof. Ravi P. Agarwal , Texas A & M University, Kingsville
- (ii) Prof. S. P. Tiwari, IIT, Dhanbad
- (iii) Prof. Shakir Ali, AMU, Aligarh
- (iv) Prof. Kuldeep Singh, Charak Jammu University, Jammu
- (v) Dr. Pradip Majhi, Calcutta University, Kolkata
- (vi) Prof. Samares Pal, University of Kalyani, Kalyani
- (vii) Prof. S. Saravanan, Bharathiar University, Coimbatore

Symposia :

- (i) Chandrasekharan centenary symposium in Number theory - Prof. Srinivas Kotyada, IMSc. Chennai
Speakers - Prof. A. Raghuram, IISER, Pune, Prof. Stephan Baier, RKMVU, Belur Math, Belur, Prof. Jaban Meher, NISER, Bhubaneswar, Prof. R. Padma, VIT, Vellore, Prof. K. Srinivas, IMSc, Chennai
- (ii) History of Indian Mathematics Prof. M. S. Sriram, Prof. K. V. Sarma Research Foundation, Chennai
Speakers- Prof. M. D. Srinivas, Centre for Policy Studies, Chennai, Prof. Amartya Dutta, ISI Kolkata, Prof. C. S. Aravinda, TIFR-CAM, Bengaluru, Prof. Venkatesavara Pai, IISER, Pune, Prof. M. S. Sriram, Prof. K. V. Sarma Research Foundation, Chennai

- (iii) Graph theory and Combinatorics (in honour of Prof. S. S. Shrikhande) - Prof. Sharad Sane, CMI, Chennai
Speakers- Prof. R. Balakrishnan, Tiruchi, Prof. Bhaskar Bagchi, ISI Bengaluru, Prof. M. K. Srinivasan, IIT Bombay, Prof. Sivaramakrishan IIT Bombay, Prof. S. Sane CMI Chennai
- (iv) Topology and Geometry - Prof. Parameswaran Sankaran, CMI, Chennai
Speakers- Prof. Mahender Singh, IISER Mohali, Prof. V. Ramani, Anna Univ, Chennai, Prof. R. Dsouza, St Joseph College, Bengaluru, Prof. P. Sankaran, CMI
- (v) Biomechanics Prof. B. V. Rathish Kumar, IIT Kanpur
Speakers- Prof. G.Radhakrishnamacharya, IIIT, Kurnool, Prof. PVSN Murthy, IIT Kharagpur, Prof. P. Muthu, NIT Warangal, Prof. Meena Pardei, Kumaon Univ Nainital, Prof. B. V. Rathish Kumar, IIT Kanpur
- (vi) Interfacial Research in Mathematics and Theoretical Computer Science - Prof. A. K. Pujari, Central University Rajasthan, Kishangarh

THERE SHALL BE POSTER PRESENTATION SESSIONS ON THE THEMES OF THE SYMPOSIA ARRANGED AT THE VENUES OF THE RESPECTIVE SYMPOSIA.

The conveners and speakers of the symposia are respected to encourage the researchers in their respective areas for paper presentations on topic related to the respective topic of the symposium.

NEWS AND ANNOUNCEMENTS

* Guidelines for acceptance of Donations to the Society

1. There will not be any further institution of Memorial Award Lectures. (This point was discussed in the earlier meetings of the Council and such was the consensus).
2. The donation amount will not be less than Rupees Five Lakh. (There could be an upward revision of this amount from time to time).
3. The donor may be an individual or a trust or a group of individuals.
4. The Indian Mathematical Society will solely and independently own the amount donated to it.
5. A prospective donor should approach the General Secretary of the Indian Mathematical Society with a Offer. Keeping with the spirit of this Policy Guide lines and if so felt necessary, referring to the Council whether the proposal be negotiated or not, in his wisdom, the General Secretary will negotiate the terms and conditions for each donation proposal and will put it before the Council for its consideration and approval. The Council will deliberate on the proposal, and after modifications, if any, may accept the proposal through a special resolution with specific details mentioning the terms and conditions. This will be published in the IMS News Letter after the Donor agrees to the resolution of the Council.
6. Ordinarily during every Annual Conference of the Society there are several Invited Lectures and Symposia running in parallel sessions. One of these academic programmes may be permanently marked / identified as “so and so sponsored programme in the (fond) memory of ” or “so and so sponsored programme in the honor of ” as per the wish of each donor by the Council. This programme may be arranged in a parallel session during the Conference.
7. Each year, the Council through its Academic Planning Committee (APC) will be the final authority in this regard to finalize the name of a speaker of an invited talk or the names of the symposium speakers for this sponsored programme. The modus operandi for identifying the speaker(s) may be decided by the Council. The invited speaker(s) will be the guest of the host institution. In case of an honorarium, if any, to the invited speaker, the amount of the honorarium will not exceed the honorarium amount for the existing Memorial Award Lectures.
8. Ordinarily train travel to the extent of AC-2 Tier be reimbursed. However, in special cases the domestic air travel may be considered.
9. Notwithstanding the above
 - (A). An offer of a donation with a stipulated purpose (not as part of the corpus), may be accepted by the Council on its merit.
 - (B). An offer of a donation of any amount in general, without any stipulated conditions, may be accepted by the Council on its merit as a part of the General Purpose Corpus.

The Council reserves its right whether or not a particular donation be accepted.

*** Green initiative taken by the Society A fervent appeal to all members of the Society**

As a part of the “Green Initiative” taken by the Society (for further details, refer Society’s website www.indianmathsociety.org.in), the Council of the Society has decided to send on line the soft copy of the Mathematics Student / give on line access to the Mathematics Student to all the Life members instead of supplying the hard copy. For this purpose, all the members of the Society are requested to register their e-mail address on line, along with Name and the Unique Membership Number there in, to J. R. Patadia on imsgoesgreen@gmail.com or jamanadaspat@gmail.com so that further necessary action can be taken.

*** The List of Life Members of the IMS is displayed on the website of the Society**

The Complete List of the Life Members of the Society is available on the IMS website along with their Membership Numbers. Members whose mails have been returned undelivered are marked accordingly with a note in red along with their names on the IMS website.

Society looks forward to their correct addresses.

Members are requested to quote their membership number while communicating change of addresses, etc.

Any change or modification in the address and an e-mail id may please be communicated to the Treasurer, IMS, Prof. S. K. Nimbhorkar (if electronically, then on sknimbhorkar@gmail.com).

*** Indian Science Congress Association (ISCA)- Annual Sessions**

The 108th session of the Indian Science Congress will be held at Symbiosis International University, Pune, Maharashtra during 3-7 January, 2021. The Focal Theme - Science and Technology for ”Sustainable Development with Women Empowerment”. Dr. (Mrs.) Vijay Laxmi Saxena Former Head of the Zoology Department, Coordinator: Bioinformatics Infrastructure Facility Centre of DBT, Govt. of India Dayanand Girls College, Kanpur, U. P. is general president.

*** Prof. P. V. Arunachalam passed away:**

Prof. P. V. Arunachalam passed away on August 13, 2020. He was the President of the Indian Mathematical Society during 2001 – 2002. May the departed soul rest in peace. The Indian Mathematical Society offers its condolences to the bereaved family.

*** Purchase of Plot:**

The process of purchase of a plot around Pune for the Indian Mathematical Society is complete. The IMS has purchased a plot of size 0.41 hector (= 44, 132 sq. feet) at Pimpalgaon tarfe Chakan. The land is about 8 km. for Pune Airport. The cost is Rs. 1,96,80000/- The name of IMS is registered on the property records (i.e. satbara). The sale-deed was signed by Prof. Satya Deo, Prof. B. N. waphare, Prof. M. M. Shikare and Prof. S. K. Nimbhorkar on February 14, 2020.

INDIAN MATHEMATICAL SOCIETY

Council Members : 1st April, 2020 to 31st March, 2021

- | | |
|---|--|
| <p>1) Prof. B. Sury
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T. N., India</p> <p>13) Prof. Asma Ali
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Navarangpura, Ahmedabad</p> | <p>2) Prof. S. Arumugam
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Tezpur University,
Assam, India</p> <p>14) Prof. G. P. Raj Sekhar
Department of Mathematics,
IIT, Kharagpur</p> <p>16) Prof. S. Sreenadh
Department of Mathematics
Sri Venkateswara University,
Tirupati, Andhra Pradesh</p> <p>18) Prof. Ahmed Ali
Deptt. of Math. & Comp. Science
Dean, School of Basic Sciences,
Babu Banarasi Das University
Faizabad Road, Lucknow</p> |
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This News letter is Published by Prof. Satya Deo, General Secretary, Indian Mathematical Society .