



**INDIAN MATHEMATICAL SOCIETY**

**(ESTABLISHED: 1907 ; REG. NO. S-550, Delhi)**

Regd. Office: Department of Mathematics, University of Pune,  
Pune

<http://www.indianmathsociety.org.in>

**NEWS LETTER**

**NO. 30**

**August – 2013**



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.

# NEWS LETTER NO. 30

August, 2013

## IMS

### INDIAN MATHEMATICAL SOCIETY

#### 79th ANNUAL CONFERENCE

(December 28-31, 2013)

The 79th Annual Conference of the Indian Mathematical Society will be held under the auspices of Rajagiri School of Engineering and Technology, Rajagiri Vally, Dist: Ernakulam, Cochin (Kerala) during December 28-31, 2013 under the Presidentship of Prof. Geetha Srinivasa Rao, Chennai, India.

Correspondence pertaining to arrangements for accommodation etc. at Rajagiri School of Engineering and Technology, Rajagiri Vally, during the Conference should be addressed to :

**Prof. Vinod Kumar P. B.**

(Local Organizing Secretary, 79th Annual Conference of the IMS)

Department of Mathematics

Rajagiri School of Engineering and Technology

Rajagiri Vally, Dist: Ernakulam, Cochin - 682039

Kerala, India.

Phone (Office): +914842427835

Mobile : +919895775409(M)

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**Details for sending Papers for presentation at the Conference :**

1. Papers should be typed double spaced on an A<sub>4</sub> size white paper and should be accompanied by an Abstract in triplicate prepared *as per the instructions and format given at later stage*. Abstract should be brief and should not exceed 250 words. The use of Formulae and

symbols should be minimized. **Abstracts received without full length paper shall not be considered.**

2. Papers should be sent *by registered post* with the words “*For the 79th IMS Annual Conference*” written in a box on the left hand top corner of the envelope to The Academic Secretary, Prof. A. K. Srivastava, Department of Mathematics, Faculty of Science, Banaras Hindu University, Varanasi- 221005 (UP), so as to reach him **not later than October 31, 2013** (after which date no paper will be accepted). See also 4. and 5 in the following.

**An E-mail address must be mentioned in the address of the author in the paper.**

3. A stamped self-addressed envelope should be enclosed for the acknowledgement / acceptance of the paper for its presentation at the Conference.

**4. A copy of the abstract and the paper must also be sent electronically (in .pdf format) to the Academic Secretary Prof. A. K. Srivastava at his e-mail address : arunksrivastava@gmail.com**

5. A copy of the paper and the abstract should be retained by the author and brought for use at the time of the Conference as it would not be possible for the Society to make the paper available at the Conference.

6. Every paper submitted for presentation should be classified, as far as possible, according to the **following classification scheme / codes** and the same should be prominently displayed *in red ink* on the left hand top corner of the abstract.

- (A) Combinatorics, Graph Theory and Discrete Mathematics.
- (B) Algebra, Number Theory and Lattice Theory.
- (C) Real and Complex Analysis (including Special Functions, Summability and Transforms).
- (D) Functional Analysis.

- (E) Differential / Integral / and Functional Equations.
- (F) Geometry.
- (G) Topology.
- (H) Measure Theory, Probability Theory and Stochastic Processes, and Information Theory.
- (I) Numerical Analysis, Approximation Theory and Computer Science.
- (J) Operations Research.
- (K) Solid Mechanics, Fluid Mechanics, Geophysics and Relativity.
- (L) Electromagnetic Theory, Magneto-Hydrodynamics, Astronomy and Astrophysics.
- (M) Bio-Mathematics.
- (N) History and Teaching of Mathematics.

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. 250/- Those wishing to become Sessional Members can also do so by paying Rs. 250/-. The amount can be paid to the Treasurer, Prof. S. K. Nimbhorkar, Department of Mathematics, Dr. B. A. M. University, Aurangabad – 431 004 (MS) by sending a **Bank Draft drawn in favour of the Indian Mathematical Society payable at Aurangabad (Maharashtra)**, so as to reach him by December 10, 2013. *After this date*, applications for becoming a Sessional member will be accepted only at the venue of the Conference at Rajagiri School of Engineering and Technology, Rajagiri Vally, Cochin during December 28-31, 2013.

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 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 carries a token amount of Rs. 2000/- along with a Certificate.

The Prize is recommended by a committee consisting of The Academic Secretary, Indian Mathematical Society (Convener), 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.

Following conditions apply :

1. The research paper must be under single authorship, the research work must have been carried out in India and the post-doctoral research work is preferred.
2. 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.

### C. 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.

Following are the areas and the grouping 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, Biomathematics, 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/-.

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.
4. Two copies of the full paper with the abstract in triplicate (not exceeding 250 words) prepared as per the details mentioned in the above **as well as its electronic version in .pdf format** should reach Prof. A. K. Srivastava at the address given earlier *not later than October 31, 2013*. Candidates should also submit their latest CV and the proof of their age ( high school certificate will do) along with the papers.

**An E-mail address must be mentioned in the address of the author in the paper.**

**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.*

### **INSTRUCTIONS FOR PREPARING ABSTRACT.**

The following instructions should be followed carefully to ensure smooth editing and printing of the abstract:

- (1) Computer print out of the Abstract is required.
- (2) The use of Formulae and symbols should be minimized.
- (3) List of references should not form part of the abstract.
- (4) Classification of the abstract is a must.
- (5) Full address is not allowed, **E-mail address is a must.**
- (6) The word “abstract” should not be written.
- (7) Abstract must begin with the title of the paper.
- (8) Coma should be inserted at the end of the title and the name(s) of the author(s) be written on the same line.
- (9) The name of the author’s town should be written in brackets after the name; in case of two (or more) authors from the same town, the town be mentioned only after the last author’s name.

The abstract is likely to be rejected if any of these instructions (particularly (1), (2), (5) and (7)) is violated.

The abstract **and its electronic version in .pdf format** should be sent to Professor A. K. Srivastava at the address given earlier so as to reach him not later than October 31, 2013 (after which date no paper will be accepted).

### **FORMAT FOR ABSTRACT**

#### **INDIAN MATHEMATICAL SOCIETY**

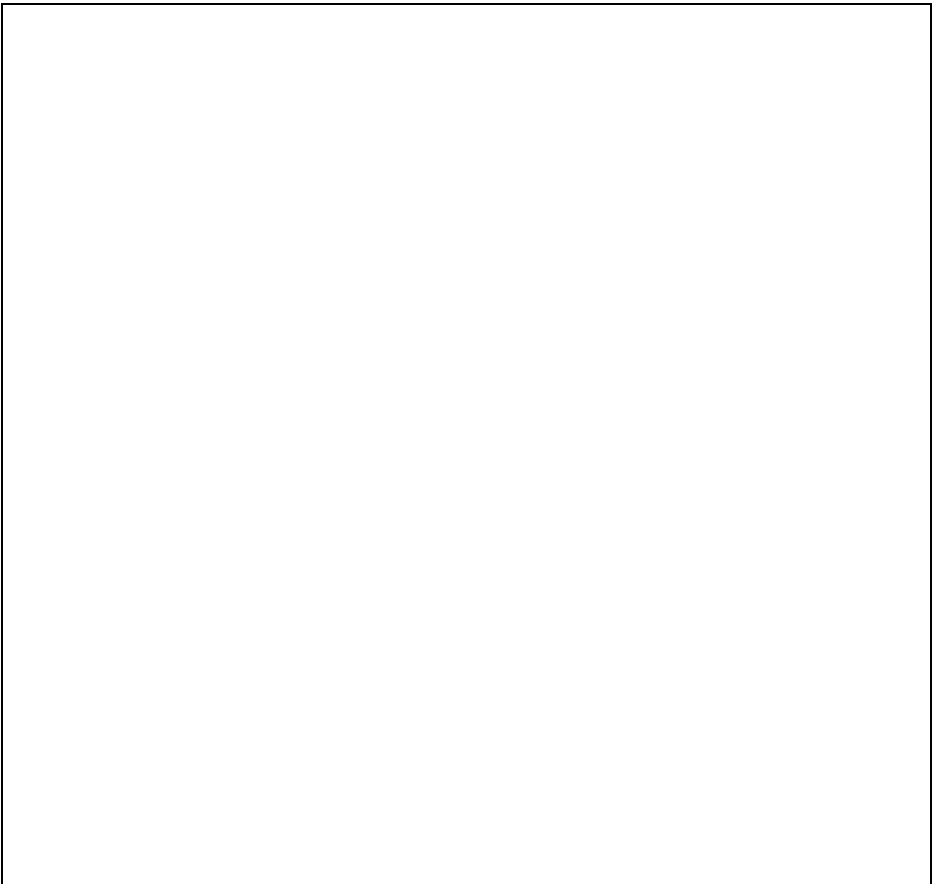
Name of the Author(s) :  
Institution(s) :  
Name of the Presenter :



Address for Correspondence :

**ABSTRACT :** The abstract must be accommodated in the space as in the box below in strict accordance with instructions given above. The word “abstract” must not be written in the box.

**SECTION:** The Section (A, B, C, etc.) should be carefully chosen and entered here. Refer the classification codes given earlier.



### **Periodicals published by the Society**

The Society publishes two periodicals – *The Journal of the Indian Mathematical Society* (JIMS ; the Journal ; ISSN 0019-5839) and *The Mathematics Student* (Math Student ; the Mathematics Student; ISSN 0025-5742) , both of which are quarterly.

- ❖ *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 abstracts of the research papers presented at the Annual Conferences,
  - the texts of the invited talks delivered at the Annual Conferences,
  - research papers, and
  - the Proceedings of the Society's Annual Conferences, Expository & Popular articles, Book Reviews, Reports of IMS Sponsored lectures, etc.

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

#### ***Manuscript Submission :***

Manuscripts intended for publication should be submitted **online** in the LaTeX, .pdf file including figures and tables.

For the Journal, manuscripts in the electronic form should be submitted to

Professor Satya Deo, Editor, JIMS.  
Harish-Chandra Research Institute, Chhatnag road,  
Jhusi, Allahabad- 211019 (UP)

E-mail : [jimsmorane@gmail.com](mailto:jimsmorane@gmail.com) .

For the Mathematics Student, manuscripts in the electronic form should be submitted to

Professor J. R. Patadia, Editor, The Mathematics Student.

(Department of Mathematics, The M. S. University of Baroda)

5, Arjun Park, Near Patel Colony, Behind Dinesh Mill,

Shivananda Marg, Vadodara-390 007 (Gujarat), India.

E-mail : [jamanadaspat@gmail.com](mailto:jamanadaspat@gmail.com)

### ***Manuscript Style :***

Manuscripts (including bibliographies, tables, etc.) should be typed double spaced on A<sub>4</sub> size white paper with 1 inch (2.5 cm.) margins on all sides with font size 11 pt., preferably in LaTeX. Sections should appear in the following order : Title Page, Abstract, Text, Notes and References. Comments or replies to previously published articles should also follow this format with the exception of abstracts. While typing in LaTeX, the following Preamble be used:

```
\documentclass[11pt]{amsart}
\usepackage{amsfonts,amssymb,amscd,amsmath,enumerate,verbatim,calc}
\renewcommand{\baselinestretch}{1.2}
\textwidth=11.5cm
\textheight=19.5cm
\topmargin=0.5cm
\oddsidemargin=0.5cm
\evensidemargin=0.5cm
\pagestyle{plain}
```

***Title Page:*** The Title page should include the manuscript title, authors' names & permanent affiliations and the name, address & e-mail address of the author to whom galley proofs and soft copy (PDF file with watermarked 'Author's copy') of the paper published (in place of reprints) is required to be sent.

***Abstract:*** The following page should include an abstract of not more than 100 words, a list of two to six key words and AMS subject classification (2010).

**Text:** The text of the manuscript should begin on a new page. The introduction should have heading number 1. Subsequent section headings (including appendices) should be designated by Hindu-Arabic numerals (2,3,...etc.) and subsection headings should be numbered 2.1, 2.2, etc. Figures, tables and displayed equations should be numbered consecutively throughout the text (1, 2,... etc.). Equation numbers should appear flush left in parentheses and running variables for equation (e.g.,  $i = 1, 2, \dots, n$ ) flush right in parentheses.

**References:** Responsibility for the accuracy of bibliographic citations lies entirely with the Authors. References in the text be indicated by number(s) in square brackets in line with the text. Example: "... as mentioned in [2, 8]. Ramanujan [9] obtained the following result ...". In the list, the references should be numbered in the order in which they appear in the text. Examples:

Reference to a journal publication:

1. G. Birkhoff, *Neutral elements in general lattices*,  
Bull. Amer. Math. Soc. 46 (1940), 702–705.

Reference to a book:

1. J. Munkres, *Elements of Algebraic Topology*,  
Addison–Wesley, 1984.

**Illustration Style:** Originals for illustrations should be sharp and of good contrast. Each Figure and Table should be mentioned in the text and numbered consecutively using Hindu-Arabic numerals. For each Figure and Table, its desired location in the text should be clearly specified. Each Figure and Table must have a caption. Example of proper style for captions : "Figure 1" or "Table 1". Suggested Figure formats are : TIFF, GIF, EPS, PPT and Postscript. Files should be at least 300 dpi.

**Reprints:** Authors of the papers printed in the Journal as well as in the Mathematics Student shall be entitled to receive a **soft copy (PDF file with watermarked `` Author's copy'')** of the paper published.

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 Rs. 100 (US \$ 10) per page will be levied for LaTeX typesetting charges.**

### Subscriptions

❖ Annual subscription for the Journal / the Mathematics Student :

For each periodical

- Rs.1500/- for Libraries of Educational Institutions in India - provided the subscription is direct or through an agent who gives complete name and address of the subscriber. The supply will be made directly to the subscribing library.
- Rs. 4500/- for others for personal use or to the agents who do not supply the name and address of the end user.
- \$100/- for personal use or for Libraries outside India.

The agents are entitled to 10 % discount on their orders.

Each issue of The Mathematics Student is being sent to the Life Members **in electronic form** to their E-mail address registered by the members with the Society for their personal use (not for circulation). 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](http://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, University of Pune, Pune – 411 007) for reference during office hours.

## Membership of the Society

### Life Membership Fees :

Rs.2000/- (US \$1000/- for those residing outside India - referred to as *International Life Members* ).

The Life Members of the Indian Mathematical Society who have registered their e-mail with the Society are entitled to a FREE online access to The Mathematics Student or a FREE copy, **online in electronic form**, of The Mathematics Student for their personal use (not for circulation).

### Ordinary Annual Membership Fees :

Rs. 250/- ( US \$100/- for those residing outside India ).

### Sessional Membership Fees :

Rs. 250/- ( US \$100/- for those residing outside India ).

Sessional Members are those who join the Society only for a particular Session. They may contribute paper(s) for presentation and / or participate in any of the academic programmes held during the Session.

- *Membership form is available on the IMS website.*

### Business Correspondence and Payments :

All business correspondence be addressed to Prof. S. K. Nimbhorkar, Treasurer, IMS; Department of Mathematics, Dr. B. A. M. University, Aurangabad – 431 004 (Maharashtra), India. All payments are to be made to Prof. S. K. Nimbhorkar, Treasurer, IMS by DD drawn in favour 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 – 600 005 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 – 600 005.

Phone : (O) +91-44-25360357, (M) 09600097799

E-mail : [premalatha.kumaresan@gmail.com](mailto:premalatha.kumaresan@gmail.com)

For further information one may contact Prof. Premalatha Kumaresan, Director, Ramanujan Institute for Advanced Study in Mathematics, University of Madras, Chennai, who is the Honourary 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:

- **President:** Prof. S. G. Dani (TIFR, Mumbai) for the election to the office of the President of the Society for a period of one year w. e. f. April 1, 2014.

The following nominations are made as members of the Council for the next three years:

Prof. Subhash J. Bhatt (S. P. University, Vallabh Vidyanagar), Prof. Dalip Singh Jamwal (Jammu University), Prof. Ajay Kumar (Delhi University) and Prof. A. Vijay Kumar (Cochin University of Science and Technology) are nominated for election as members of the Council for a period of three years w. e. f. April 1, 2014.

Any member of the Society may submit to the Returning Officer, *Prof. M. M. Shikare*, Department of Mathematics, University of Pune, Pune – 411 007, Maharashtra, India, an alternative list of name(s) for some or all of the above vacancies; only such nominations being considered valid as are supported in writing by a letter of consent from each one of the candidates proposed by a member, so as to reach the Returning Officer not later than the October 5, 2013.

The nominations made by the Council with an indication made to that effect, together with other valid nominations made by members of good standing of the Society shall be submitted by the Returning Officer to all members of the Society in good standing by means of ballot papers sent by post by November 10, 2013 with instructions to be returned to him latest by the December 10, 2013.

(A member will be considered to be of good standing if his/her membership Fees are not in arrears and if he/she has paid his/her membership Fees for the current year by July 31, 2013).



The Returning Officer shall collect the ballot papers returned to him by the members up to December 10, 2013 and carry them to the venue of the Conference, where they will be opened and counted by him (or his nominee) in the presence of a committee consisting of the President (or his nominee) and the other Secretaries. A simple majority shall determine the result of the election in each case.

The list of newly elected office-bearers and additional members of the Council shall be announced at the General Body Meeting going to be held during the Annual Conference. The new Council shall assume charge of its office with effect from the April 1, 2014.

**MINUTES OF THE ANNUAL GENERAL BODY MEETING  
OF THE SOCIETY HELD IN THE SEMINAR HALL,  
BANARAS HINDU UNIVERSITY, VARANASI, ON  
JANUARY 25, 2012 AT 12:15 PM**

The Annual General Body Meeting of the Indian Mathematical Society was held at 12.15 p.m. on January 25, 2013 in Seminar Complex, Faculty of Science, of the Banaras Hindu University, Varanasi.

The following business was transacted.

**Item No. 1.** To confirm the Minutes of the General Body meeting held on December 30, 2011 at 12.15 pm in the Senate Hall of the Swami Ramanand Teerth Marathwada University, Nanded.

The Minutes of the General Body meeting held on December 30, 2011 at 12.15 pm at Nanded were confirmed.

**Item No. 2 :** To receive the report of the General secretary for 2012.

Since the General Secretary Prof. V. M. Shah, could not attend the meeting, Prof. N. K. Thakare presented the report sent to him by Prof. V. M. Shah.

### Report of the General Secretary for 2012

- Two IMS News Letters - No. 27 in March 2012 and No. 28 in August 2012 - were published. They are also displayed on the IMS Website.

The copies of the News Letters were also sent to all the university departments and many colleges of the Country.

- 140 Life Members and 33 Ordinary Members have been enrolled during the year 2012.
- Each Life Member of the Society is now allotted a Permanent Membership Number.
- The complete list of Life Members of the Society is now available on the IMS website. Members whose mails have been returned undelivered in the past are marked accordingly with a "NOTE : MAIL RETURNS UNDELIVERED" in RED. The Society looks forward to their correct addresses.
- 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 available on the IMS website.
- **A. Narasinga Rao Memorial Prize** for 2010 was not recommended by the Committee appointed for the purpose and hence is not awarded to any one.
- **P. L. Bhatnagar Memorial Prize** for 2012 has been awarded jointly to Mr. Debdyuti Banerjee (Hoogly) and Mr. Prafulla Susil Dhariwal (Pune) for being the top scorers for the Indian Team (28 points) at the 53<sup>rd</sup> International Mathematics

Olympiad held during July 04 – 16, 2012 at Mar del Plata, Argentina.

- The work for the registration of the Indian Mathematical Society at Pune under Society's Act 1860 is in good Progress. (Presently the Society is registered at Delhi with Registration No. S – 550, Delhi).
- The work for the digitization of the volumes of the Journal of the Indian Mathematical Society and The Mathematics Student is in good Progress.
- As an organization of highly qualified intellectuals, the Society on its own decided to adopt the green initiative taken by the Government of India – a welcome move as it will benefit the society at large through reduction in paper consumption and contribution towards a greener environment. Consequently, the Society has decided to send **online** the soft copy of the Mathematics Student / give **online** access to the Mathematics Student to all the Life members instead of supplying the hard copy. Also, the IMS News letters of March, beginning with IMS News Letter No 29 of March 2013, will be sent **online** / give **online** access to all, instead of sending its hard copy to the members of the Society.
- A heartfelt congratulations to Dr. S. B. Nimse, Vice Chancellor, SRTM University, Nanded, for getting elected to the Office of the General President of the Indian Science Congress Association for 2015 on behalf of the Society.
- A Special Volume of the Journal of the Indian Mathematical Society is planned to bring out to commemorate the 125<sup>th</sup> birth anniversary of legendary Indian mathematician Srinivas Ramanujan.

**Item No. 3** : To receive the Report of the Academic Secretary-2012.

## Report of the Academic Secretary 2012.

1. A meeting of the Academic Planning Committee (APC) of IMS was held at the Department of Mathematics, University of Pune, Pune on July 03, 2012. The names of four memorial award lecturers were decided. They were all contacted by the General Secretary, Prof V.M.Shah, and all of them accepted the invitations. Their names, affiliations, titles of their award lectures, etc. is available in the abstract book of this conference.
2. Keeping the suggestions from the members of the APC in mind, two mathematicians of highest possible stature were contacted for plenary talks. Professor Gopal Prasad, University of Michigan, USA and Prof V. Srinivas, TIFR, Mumbai, accepted our invitation and gave plenary talks. The titles of their talks are in the abstract book.
3. Sixteen mathematicians, including those suggested by the APC, were contacted for giving invited talks. Most of them agreed. The titles of their talks, abstracts, etc. are mentioned in the abstract book
4. Five Symposia, each having about 5-6 invited speakers, are organized this year on different topics of mathematics. The symposia on late Prof. P. L. Bhatnagar's contributions that was proposed by Prof. M. P. Srivastava of Department of Physics, University of Delhi, at the instance of Prof. Tikekar finally could not materialize. Thus there were about 25-30 invited speakers under this category.
5. A total of 100 research papers were received for presentation at this conference. As mentioned in the "Abstract Book" there were 20 competitors for various best paper presentations selected after refereeing process. There were five entries for AMU prize, one entry for VMS prize and 13 entries for various IMS prizes. Thus, this year there was a total of 120 contributed papers for presentations. Some papers were rejected because

they were not in correct format or were substandard or were received very late.

6. The tentative schedule of all lectures of this conference was prepared in advance and was displayed on Society's website. The final time-table of everyday was circulated one day in advance of the actual days including minor changes, if any.

**Item No. 4 :** To receive the report of the Editor, The Journal of the Indian Mathematical Society for 2012.

Report of the Editor, Journal of the Indian Mathematical Society.

- Manuscript status:

Number of manuscripts pending with the referees or under process at the end of 2011: 39

Number of manuscripts received during 2012 : 127

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Total 166

Number of manuscripts accepted in 2012 : 50

Number of manuscripts not accepted : 85

Number of manuscripts with the referees or under process : 31

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Total 166

- Publication status:

Volume 79 (1 – 4) 2012 of the Journal of the Indian Mathematical Society was published and sent to the subscribers in January 2012.

Volume 80 (1 – 2) 2013 of the Journal of the Indian Mathematical Society is published and will be sent to the subscribers in February 2013.

Volume 80 (3 – 4) 2013 of the Journal of the Indian Mathematical Society is under preparation and will be published in June 2013.

There is no backlog of accepted papers.

- **Acknowledgements:**

The editor puts on record his grateful thanks to the referees and to the contributors. He is also thankful to the General Secretary of IMS, Prof. V. M. Shah, the Treasurer of IMS, Prof. S. K. Nimbhorkar and his former colleagues Prof. B. N. Waphare and Prof. M. M. Shikare from Pune University, Pune for their help. The Editor of JIMS would like to thank authorities of Z. B. Patil College (Dhule) and Vilas Suryavanshi (Dhule) for their technical support.

The credit for dispatch of both the periodicals of IMS goes to Dr. V. V. Joshi from Pune University and we thank him profusely.

**Item No. 5:** To receive the report of the Editor, Mathematics Student for 2012.

Report of the Editor of The Mathematics Student.

**Publication Status:**

- The Vol. 80, Nos. 1- 4, (2011) of The Mathematics Student is published and distributed. The contents of this volume is available on the Society's website.
- The Vol. 81, Nos. 1- 4, (2012) of The Mathematics Student will soon go to Press for printing is expected to be published and distributed within next three months.

**Manuscript Status:**

- 59 manuscripts are received during the period from December 24, 2011 to January 18, 2013 and 25 manuscripts were reported as pending with the referees in the last report.

- Out of these total 84 manuscripts, 16 are accepted, 49 are not accepted and 19 are pending with the referees.

### **Acknowledgements:**

- The Editor takes this opportunity to put on record his sincere thanks and profuse gratefulness to the referees for their continuous support and assistance in our sustained efforts for timely publication of the Mathematics Student. The Society looks forward to the active assistance in the constructive reviewing work as well as quality contributions from the large pool of mathematicians from India and abroad.
- The Editor thanks the Treasurer Prof. S. K. Nimbhorkar and the Administrative Secretary Prof. M. M. Shikare for their assistance in the composing, printing and distribution work of the Vol. 80, Nos. 1-4, (2011) of The Mathematics Student.
- The Editor also thanks the Department of Mathematics of the Pune University and the Pune Press for their assistance in the publication of the Mathematics Student.

### **Call for research contributions:**

- Contributions are welcome and are assured of all the sincere efforts for prompt processing.

**Item No. 6:** To consider the Audited Statement of Accounts for the year 2011 – 2012 and budget for the year 2013 – 2014.

The Audited Statement of Accounts for the year 2011 – 2012 and budget for the year 2013 – 2014 presented by the Treasurer, Prof. S. K. Nimbhorkar, was approved.

**Item No. 7 :** To consider the venue of the 79<sup>th</sup> Annual Conference of the Indian Mathematical Society to be held in December 2013.

The Council accepted the firm invitation from the Principal, Rajagiri College of Engineering and Technology, Cochin, Kerala, to hold the 79<sup>th</sup> Annual Conference of the Indian Mathematical Society under the auspices of Rajagiri College of Engineering and Technology during December 28-31, 2013. Prof. Vinod Kumar, Head, Department of Mathematics of the College will be the Local Organizing Secretary.

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

President for 2013-14; General Secretary, Academic secretary, Treasurer, Editor of JIMS, Editor, Math Student and three members of the council for a period of three years w. e. f. April 1, 2013.

The returning officer Prof. M. M. Shikare reported that the following members are declared elected.

**President for 2013-14:** Prof. (Mrs.) Geetha Srinivasa Rao (Chennai) for a period of one year with effect from April 01, 2013.

**General Secretary :** Prof. N. K. Thakare (Pune) for a period of three years with effect from April 1, 2013.

**Academic Secretary :** Prof. A. K. Srivastava (BHU, Varanasi) for a period of three years with effect from April 1, 2013.

**Treasurer :** Prof. S. K. Nimbhorkar (Aurangabad) for a period of three years with effect from April 1, 2013.

**Editor, Journal of the Indian Mathematical Society :** Prof. Satya Deo (Allahabad) for a period of three years with effect from April 1, 2013.



**Editor, The Mathematics Student :** Prof. J. R. Patadia (Vadodara) for a period of three years with effect from April 1, 2013.

**Three members of the Council** for a period of three years w. e. f. April 1, 2013 :

Dr. S. B. Nimse (Nanded), Prof. Girija Jayaraman (New Delhi) and Dr. S. Ahmad Ali (Lucknow).

**Item No. 9:** Any other item with the permission of the chair.

Consideration of the dedication of a volume of The Mathematics Student to Prof. V. M. Shah.

Prof. V. M. Shah, General Secretary of the Society, has voluntarily decided to take retirement from his services to the Society once his term gets over on March 31, 2013. On this occasion of his retirement, in appreciation of his long and dedicated outstanding services of 30 years to the Society, it is resolved to dedicate the Volume 82, Nos. 1- 4 (2013) of The Mathematics Student in his honor.

The Meeting ended with a vote of thanks to the Local Organizers and the President of the Indian Mathematical Society.

(V. M. Shah)

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 Tuesday, December 31, 2013 at 12.15 p.m. in the Department of Mathematics, Rajagiri School of Engineering and Technology, Rajagiri Vally, Cochin (Kerala), 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 January 25, 2013 at Banaras Hindu University (BHU), Varanasi - 221 005.
2. To receive the report of the General Secretary for 2013.
3. To receive the report of the Academic Secretary for 2013.
4. To receive the report of the Administrative Secretary for 2013.
5. To consider the Audited Statement of Accounts for the year 2012-2013 and the Budget for the Financial Year 2014 – 2015.
6. To receive the report of the Editor of the Journal of the Indian Mathematical Society for 2013.
7. To receive the report of the Editor of the Mathematics Student for 2013.
8. To consider the venue of the 80<sup>th</sup> Annual Session of the Society to be held in December 2014.
9. Announcement of the results of the following elections:  
  
President for 2014– 2015 and three members of the Council for a period of three years w. e. f. April 01, 2014.
10. Any other item with the permission of the chair.

(Members in good standing are entitled to exercise vote.)

N. K. Thakare  
General Secretary, IMS.  
C/o Center for Advanced Study in Mathematics  
University of Pune, Pune

August 14, 2013

**Highlights of the Academic Programme of the ensuing Conference at Rajagiri School of Engineering and Technology, Rajagiri Vally, Cochin (Kerala)**

**1. Plenary Lectures : One**

The Plenary Lecture will be delivered by Prof. George Gheverghese Joshep, School of Education (Mathematics Education), University of Manchester, United Kingdom. Title of his Lecture will be “From Zero to Infinity : The Indian Legacy of the Bright Dark Ages”

**2. IMS Memorial Award Lectures :**

1. The 27<sup>th</sup> P. L. Bhatnagar Memorial Award Lecture will be delivered by Dr. (Mrs.) Indira Narayanaswamy, Aeronautical Development Agency (ADA), Govt. of India, Bangalore
2. The 11<sup>th</sup> Ganesh Prasad Memorial Award Lecture will be delivered by Prof. D. V. Pai, visiting Professor, IIT Ahemadabad on “Viscosity approximation methods for minimization and fixed point problems -- a relook”.
3. The 24<sup>th</sup> Srinivasa Ramanujan Memorial Award Lecture will be delivered by Prof. Dilip P. Patil, Professor, Department of Mathematics, IISc, Bangalore on “Bernside Algebras of Finite Groups”.

4. The 24<sup>th</sup> V. Ramaswamy Iyer Memorial Award Lecture will be delivered by Prof. M. M. Shikare, Department of Mathematics University of Pune, Pune on “Generalizations of some graph-theoretic results to binary matroids”
5. The 24<sup>th</sup> Hansraj Gupta Memorial Award Lecture will be delivered by Prof. Ajit Iqbal Singh, Indian Statistical Institute, New Delhi on “How permutations, partitions, projective representations and positive maps entangle well for Quantum Information Theory”.

3. **One hour Invited Talks:**

Prof. R. N. Mohapatra, University of Central Florida, Orlando, USA

Title of the talk: Riesz bases, Frames and Erasers

4. **Half an hour Invited Talks:**

(i) Prof. Gangadhar Hiremath, University of North Carolina, USA

Title of the talk: Metrization, diagonal properties and invariance

(ii) Prof. Meenakshi Wasadikar, Department of Mathematics, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad

(iii) Prof. D. S. Jamwal, Jammu University, Jammu

(iv) Prof. B. Suri, Stat-Math. Unit, ISI, Bangalore

(v) Prof. A. K. Nandakumaran, Deptt. of Mathematics, ISI, Bangalore

## 5. **Symposia:**

- (i) Srinivasa Ramanujan's work  
Convener: Prof. K. Srinivasa Rao,  
Retd. Professor, The Inst. of Math. Sc., Chennai
- (ii) Differential equations, Non-linear Analysis, Theory of Semigroups  
Convener: Prof. A. Bahuguna, Indian Institute of Technology, Kanpur
- (iii) Operator Theory  
Convener: Prof. Vijay Kodiyalam, IMSC, Chennai
- (iv) Topology and Applications  
Convener: Prof. P. Sankaran, IMSc, Chennai.
- (v) Graph Theory and Applications  
Convener: Prof. Vijayakumar Ambat, Cochin
- (vi) Differential manifolds and related area  
Convener: Prof. Dr. (Mrs.) Manjusha Majumdar  
Calcutta University, Calcutta

## **NEWS AND ANNOUNCEMENTS**

**❖ The List of the 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](mailto:sknimbhorkar@gmail.com) ).

❖ **Prof. Premalatha Kumaresan has taken over as Librarian of the IMS Library**

On retirement of Prof. V. Thagaraj, Prof. Premalatha Kumaresan, the Director, Ramanujan Institute for Advanced Study in Mathematics, University of Madras, Chennai, has been nominated as the Honourary Librarian of the Indian Mathematical Society Library.

- ❖ As decided earlier the IMS News Letter is now being sent in the form of **soft copy** only to the members of the IMS .

❖ **Prof. S. B. Nimse is Elected as the President of the Indian Science Congress (ISCA) for the 2015 Session**

Prof. S. B. Nimse, Vice Chancellor, Lucknow University, Lucknow and a member of the Council of the Indian Mathematical Society has been elected as the General President of the 102<sup>nd</sup> Session of the Indian Science Congress Association to be held in January 2015. Prof. S. B. Nimse was the Local Organizing Secretary of the 77<sup>th</sup> Annual Conference of the Indian Mathematical Society held in December 2011 at SRTM University, Nanded.

The IMS congratulates Prof. S. B. Nimse on his success and wish him a happy and prosperous future.

❖ **P. L. Bhatnagar Prize for 2013 to Indian Team at 54<sup>th</sup> International Mathematical Olympiad (IMO)**

The 54<sup>th</sup> International Mathematical Olympiad (IMO) was held during July 18–26, 2013 at Santa Marta, Colombia. The Indian team bagged 2 silver, 3 bronze medals and secured the 29<sup>th</sup> position. A six member team of students picked up from across the country schools which was sponsored by the Homi Bhabha Centre for Science Education (HBCSE), an Institution under the Tata Institute of Fundamental Research (TIFR). A total of 528 students from 97 countries participated in the prestigious world event.

The Silver Medal winners are: Sangik Saha (Kolkata West Bengal) and Shubham Sinha (New Delhi), while the Bronze Medal winners are Pallav Goyal (Chattisgarh), Pranab Nuti (Hyderabad-Andhra Pradesh) and Anish Prasad Sevekari (Pune-Maharashtra).

Mr. Sangik Saha (Kolkata West Bengal) and Shubham Sinha (New Delhi) were top scorers with 28 points. They will be awarded the P. L. Bhatnagar Memorial Prize (carrying a Prize of Rs. 1000/- and a Certificate) of the Indian Mathematical Society. The Prize will be awarded to them in the Inaugural Session of the ensuing 79<sup>th</sup> Annual Conference of the Society on December 28, 2013 at the Rajagiri School of Engineering and Technology, Rajagiri Vally, Cochin (Kerala).

The team was led by Prof. C.R. Pranesachar (Leader), Mathematical Olympiad Cell, HBCSE, TIFR Bengaluru Dr. Aditi Phadke, Norrowsjee Wadia College Pune (Deputy Leader ) and Dr. V. V. Acharya, Ferguson College Pune (Observer).

❖ **A. Narasinga Rao Memorial Prize by IMS.**

For the year 2011, the Committee did not recommend this prize.

❖ **Indian Science Congress Association (ISCA) Annual Session for the year 2014.**

- The 101<sup>st</sup> Session of the Indian Science Congress Association will be held at the University of Jammu, Jammu during February 3 - 7, 2014. The Focal Theme of the Session will be “Innovations in Science and Technology for Inclusive Development”. Prof. R. C. Sobti, Vice Chancellor, Babasaheb Bhimrao Ambedkar University, Lucknow (UP) is the General President.
- Prof. D. S. Hooda, Dean and Head, Department of Mathematics, Jaypee University of Engineering and Technology, Raghogarh (MP) is the Sectional President for the section of Mathematical Sciences (including Statistics).
- Prof. Meenakshi Wasadikar, Department of Mathematics, Dr. B. A. M. University, Aurangabad, is the Sectional Recorder for the section of Mathematical Sciences (including Statistics).

❖ **ISCA Young Scientist Awardee and Best Poster Awardee for Mathematical Sciences (including Statistics) for the Year 2012-13.**

Mr. Pratibhamoy Das, Department of Mathematics, Indian Institute of Technology, Guwahati is the ISCA Young Scientist Awardee for the year 2012-13 for the Mathematical Sciences (including Statistics).

Kabita Sarkar, Salesian College, Siliguru and Sumanta Kumar Das, ISSA, DRDO, Metacalfe House, Delhi are the Best Postar Awardee for the year 2012-13 in the Mathematical Sciences.

The IMS congratulates these distinguished young researchers and wishes them the best in their pursuit of excellence.



❖ **ISCA Awardee for the Centenary Year 2012-13.**

Prof. S. G. Dani, Tata Institute of Fundamental Research, Mumbai is the ISCA Awardee for M. K. SINGAL MEMORIAL AWARD for the year 2012-13.

The IMS congratulates this distinguished scientist and wishes him the best in his pursuit of excellence.

**Organizations of Conferences as a part of celebration of National Mathematics Year 2012.**

As a part of celebration of the National Mathematics year, at the instant and initiative of the Indian Mathematical Society, several conferences were organized. Some of the places are Department of Mathematics, School of Applied Sciences, B. B. D. University, Lucknow, Department of Mathematics, University of Pune, School of Mathematics, SRTM University, Nanded, Department of Mathematics, North Maharashtra University, Jalgaon, Aligarh Muslim University, Aligarh, S. V. National Institute of Technology, Surat and in several colleges throughout Maharashtra.

❖ **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](http://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* therein, to J. R. Patadia on [imgoesgreen@gmail.com](mailto:imgoesgreen@gmail.com) or [jamanadaspat@gmail.com](mailto:jamanadaspat@gmail.com) so that further necessary action can be taken.

## ❖ Institution of THE GANIT RATNA AWARD ---An Appeal

A National Conference on Discrete Mathematics, Algebra and Analysis was organized, to honor Prof. N. K. Thakare and Prof. T. T. Raghunathan on the occasion of completion of 75 years of their age, from April 21-24, 2013 at the Department of Mathematics, University of Pune, Pune. On this occasion more than Rupees **Twenty five lakhs** were collected by Prof. N. K. Thakare Gaurav Samiti. The funds will be deposited in a bank and the interest earned thereof will be utilized to institute a prestigious award to be given to a distinguished mathematician.

The award will be called **THE GANIT RATNA AWARD** in memory of Late Prof. 'Ratan' Prakash Agrawal of Lucknow University, Lucknow. Prof. Agrawal was father of Special Functions in India. He was a gem of mathematics. His 3- volumes "Resonance of Ramanujan's Mathematics" are considered unique. Apart from these volumes, he contributed in the fields of q-series, integral transforms, mock theta functions, continued fractions and combinatorics.

The modus-operandi of selection of the awardee will be on the lines of Nobel Prize, Abel Prize, Fields Medal, Dnyanpeeth award et al.

There are plans to award this prize annually and preferably at the time of Inauguration of the Annual Conference of the Indian Mathematical Society in the auspicious presence of constitutional heads such as the President, Vice- President of India. It may be recalled that the Annual Session of the Indian Science Congress Association is inaugurated every year on 3<sup>rd</sup> January by the Hon. Prime Minister of India.

**It is with a fervent request we appeal all mathematics lovers to contribute to this Ganit Ratna Award. For contribution / donation, one may contact on the e-mail address: [bnwaph@math.unipune.ac.in](mailto:bnwaph@math.unipune.ac.in) or [waphare@yahoo.com](mailto:waphare@yahoo.com).**

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### ❖ **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 Lacs. (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 honour 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 symposia 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.

## INDIAN MATHEMATICAL SOCIETY

Council Members 2013 - 14

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