



# 4th International Vedic Mathematics Conference

## Conference Report

Chaitanya Bharathi Institute of Technology (Autonomous)

Hyderabad 29<sup>th</sup> - 31<sup>st</sup> August 2019

Supported By

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The  $4^{th}$  International Conference was held at Chaitanya Bharathi Institute of Technology (CBIT) in Hyderabad from  $29^{th}$  –  $30^{th}$  August 2019. Members of the IAVM organised the programme and faculty at CBIT, under the leadership of Dr Suresh Babu, arranged and managed all the logistics.

The inaugural session was presided over by the Principal of CBIT, Dr P.R. Reddy. The keynote speech was given by the celebrated academic, Professor K. Ramasubramanian of IIT Mumbai, who gave a fine talk on the history of mathematics and science in India.

#### **Invocation with Vedic Chants**



Lighting of lamp by Professor K. Ramasubramanian



This wide-ranging conference was a great success with many participants attending the various presentations, seminars, workshops and activities. Delegates came from diverse parts of India, and international delegates were from the Philippines, Nepal, UK, USA and South Africa.

#### Conference speakers and the CBIT staff



The conference consisted of three separate streams of activities: presentations of papers, workshops for teachers and workshops for school-aged students. The principal aspect was the presentation of original research papers on themes related to the Vedic Mathematics of Sankaracarya Sri Bharati Krishna Tirthaji, applications of his sutras, and papers relating to the rich history of mathematics in India. The quality of papers was exceptionally high, and delegates were thoroughly interested. The presentations of most papers were followed by engaging scholarly discussions. The presentations were made during the first two days.

### Squaring A Circle And Vice Versa Made Easy Upto Any Desired Approximation – Presentation by Kasi Rao Jagathapu



One highlight was the presentation by Dr Jagathapu, who has accomplished some truly practical and original research on mathematics arising from the work of Srinavasa Ramanujan.

We were honoured to have received recognition of our conference and workshops from the office of The Commissioner of School Education, Telangana, Hyderabad, in the form of a letter to the principals of schools, with an action to depute the teachers to attend the conference and the workshops. The teachers of Engineering at CBIT also enthusiastically attended the workshops. The feedback showed a great enthusiasm for this "new" approach to teaching, with an expressed need by some to make this a part of the conventional mathematics curriculum.

#### PROCEEDINGS OF THE COMMISSIONER OF SCHOOL EDUCATION, TELANGANA:: HYDERABAD.

Rc.No.393/Plg.-2/2019.

Dt:26.08.2019.

Sub:- School Education – 4<sup>th</sup> International Conference on Vedic Mathematics – Deputation Mathematics teachers – Request – Reg.

Read:- Lr.No.Nil, dt.02.08.2019 of the Principal, CBIT(A), Gandipet, R.R. District addressed to Dr.B. Janardhan Reddy, IAS, Secretary to Govt., Education Department, Telangana, Hyderabad.

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While enclosing herewith a copy of the reference read above along with its enclosures, all the District Educational Officers in the state are hereby informed that the 4<sup>th</sup>

International Conference on Vedic Mathematics is being held during 29<sup>th</sup> – 31<sup>st</sup> Aug, 2019 for which the Secretary to Government, Education Department, Dr. B. Janardhan Reddy, IAS is invited as Chief Guest.

Therefore, all the District Educational Officers in the state are requested to instruct all the MEOs and HMs to take necessary action by deputing the Mathematics Teachers who are interested to attend 4<sup>th</sup> International Conference on Vedic Mathematics during 29<sup>th</sup> – 31<sup>th</sup> Aug. 2019. Participation of Mathematics Teachers should be registered online: <a href="https://instituteavm.wixsite.com/conf2019/events/javm-2019">https://instituteavm.wixsite.com/conf2019/events/javm-2019</a> on OD basis.

Encls. As above.

S. Srinivasa Chary for Commissioner of School Education

To

All the District Educational Officers in the State. Copy to all the RJDSEs in the State.

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The teachers were introduced to a wide range of topics from arithmetic, algebra and geometry.

#### Hands-on workshop on Model Making by Marianne Fletcher (South Africa)



#### **Feedback from Secondary School Teachers**



James Glover, IAVM, handing over the certificate of participation



The third day was devoted to workshops for school students, and we held large workshops for Grades 6 - 8 and also for grades 9 and 10. The children were fascinated by the fast techniques of Vedic mathematics, and sufficient practice enabled them to take these into their mathematics lessons and activities at school.

#### Students and accompanying teachers enjoying the workshop



#### **Enthusiastic participation by students**



With each conference our network of contacts and enthusiasts grows larger, not only at grass-roots level but also amongst educationalists and academics. For example, immediately prior to the conference in Hyderabad, the IAVM ran two programmes of workshops in Bangalore and Delhi. At RV College of Engineering in Bangalore, Mathematics and Engineering undergraduates, as well as faculty, attended a full two-day schedule, hosted by the Department of Mathematics. The Principal of RVCE, Dr Subramanian, announced that he wishes to have ten faculty members trained in Vedic Mathematics, so that the methods and techniques can be included within the curriculum for undergraduates. He asked the IAVM to organise and implement this.

The IAVM continues the pledge to promote Vedic Mathematics in India and abroad. In August, prior to the conference, workshops were held for teachers and students in the Philippines and South Africa.

We have started formulating the road map for 2020, with the idea to continue the workshops in India, SA and the Philippines and with a possible expansion to one more country. The IAVM has signed the MOU for the 5<sup>th</sup> International VM Conference with Sree Sankara College, Kalady, Kerala to be held at the end of December 2020. Sree Sankara College, Kalady, was founded in the year 1954 by Swami Agamananda, a social reformer and a foresighted scholar of Sri Ramakrishna Advaita Ashram. The institution was established with a view to perpetuating the memory and doctrines of the great saint and philosopher, Adi Sankaracharya, and to nurture his birthplace as a cultural citadel. We are blessed to be able to hold the conference at this venue.

#### **CBIT staff and IAVM**



#### **Research Papers Presented at the Conference**

- 1. Exposition of the Chakrawal Method (A gem of Bhaskara's Algebra) Ravi Asrani
- 2. Sum and Difference of Squares Kenneth Williams
- 3. Divisibility Test in Vedic Mathematics and its Extension Shriram Chauthaiwale
- 4. Mahaviracharya's Ganitasara Sangraha P.Devaraj
- 5. Practical Mathematics Kenneth Williams
- 6. Building Polynomials from Separate Roots: An Ultimate Vindication of Vertically and Crosswise -Nathan Annenberg
- 7. Binomial Expansions and the Naughty Calculus! James Glover
- 8. Vedic Mathematics and Information Technology Dr. Ramamurthy N
- 9. Extending Ekadhikena Method for Recurring Decimals into General Decimal Division Kuldeep Singh
- 10. Finger Techniques in Vedic Mathematics Jayanta Acharya
- 11. Squaring A Circle And Vice Versa Made Easy Up to Any Desired Approximation Kasi Rao Jagathapu
- 12. Unique Way of Finding the Product of Two Numbers Ending in 5 An Application of Sub-Corollary,
  Antyayordasake'pi Raghavendra Prasad S.G
- 13. Multiplication by Nines and its Astronomical Applications Kenneth Williams