



POORNIMA
UNIVERSITY

School of Basic & Applied Sciences

Department of Mathematics

Report: AMS-AET (2017)

International Conference on “Advances in Mathematical Sciences and Applications in Engineering & Technology (AMSAET 2017) with Symposium on Mathematical Modelling of Ecological, Environmental and Biological Systems”

January 27-29, 2017

January 30, 2017

Three days International Conference in association with Gwalior Academy of Mathematical sciences on ‘Advances in Mathematical Sciences and Applications in Engineering & Technology (AMS-AET 2017) with symposium on Mathematical Modeling of Ecological, Environmental and Biological systems’ was organized in the premises of Poornima University on January 27-29, 2017. This Conference was sponsored by Science & Engineering Research Board (SERB), Department of Science & Technology, New Delhi and Department of Science & Technology, Government of Rajasthan. It was also technically supported by Indian Society for Technical Education (ISTE), Indian Society of Lighting Engineers (ISLE), Fire and Security association of India (FSAI), and RAOPS (Rajasthan Academy of Physical sciences).

The objective of the Conference was to provide an intellectual forum for exchange of knowledge and information in relation to latest developments in the field of Mathematics.

On the first day 7 Session were conducted which includes Chief Guest Address, Three Key Note address and 2 Invited Talks, parallel session for paper reading and a meeting of the Mathematics Consortium (TIMC). On the second day 8 sessions were conducted which includes 5 Invited Talks and parallel paper reading sessions and a general body meeting of GAMS. The third day started with the paper reading sessions, followed by the symposium on Mathematical modeling of Ecological, environmental and Biological systems and an invited talk and discussions.

The conference was inaugurated with auspicious Ganesh vandana, lamp lighting and garlanding ceremony of Maa Saraswati.

The inaugural function was attended by **Chief Guest Prof. Aditya Shastri**, Vice Chancellor, Banasthali University, **Dr. V. P. Saxena**, Director, SIRT, Bhopal, **Dr. Karmeshu**, President, GAMS, **Dr. D. S. Chauhan**, Ex. Dean, Faculty of Science, University of Rajasthan, with other eminent dignitaries as **Dr. S. M. Seth**, Chairperson, Poornima University, **Dr. K.K.S. Bhatia**, President, Poornima University, **Shri. Shashikant Singhi**, Director General, **Dr. Manoj Gupta**, Provost, **Dr. Ajay Kumar Bansal**, Director, PIET and **Dr. Mahesh Bunde**, Dean (R & D). The inaugural ceremony was preceded with the felicitation of honourable dignitaries.

Dr. Shilpi Saxena, Organizing Chair AMS-AET 2015, began the session delivering introductory speech about the conference in which she told the importance of mathematic applications in multi-disciplinary fields with some relevant quotes. The Hon’ble **Chief Guest Prof. Aditya Shastri**, Vice Chancellor, Banasthali University, considered as a doyen in his field of specialization in Computers &

mathematics, very nicely explained the fact that how each and every discipline is incomplete without mathematics and it is very easy to understand it without fear. The **Guest of Honour Dr. V. P. Saxena**, Founder President, GAMS gave brief introduction of the Gwalior Academy of Mathematical Sciences. **Dr. S.M. Seth (Presiding the Inaugural Function)**, Chairperson, Poornima University, Chairman PGC and PJ Foundation mentioned that there is a need to bring back old methodology of learning mathematics. He endowed the words of blessings for the inauguration of the functions. **Dr. K. K. S. Bhatia**, President, Poornima University, in the inaugural session, briefed about the Poornima Foundation. Additional to this he had also encouraged one and all present in the conference with his welcome address. The souvenir of the conference was also released in the inaugural function. Inaugural session was concluded by **Dr. Nupur Srivastava**, Program Chair & Professor, Department of Mathematics, Poornima University who gave vote of thanks and expressed his gratitude to everyone for being part of this grand intellectual gathering.

The inaugural session was followed by the **key note address of Dr. V P Saxena** on 'Mathematical modeling in transdermal drug distribution in human body', **Dr. Karmeshu** on 'Modelling nonlinearity and stochasticity: Systems approach' and **Dr. D. S. Chauhan** on 'Fluid Flow effects'. Invited Speakers **Dr. M. A. Pathan**, CMS, Kerala delivered talk on 'On Power series associated with bell polynomials and multiple zeta functions' and **Prof. Ravindra Kulkarni**, delivered **Prof. S. K. D. Gaur Memorial Lecture**. Invited talks were followed by parallel paper reading sessions and around 15 papers were present on the first day.

The first day concluded with the meeting of 'The Mathematics Consortium (TIMC)' under the President ship of Prof. Ravindra kulkarni, and was attended by **Prof. Karmeshu, Prof. V. P. Saxena, Prof. C. S. Arvinda, Prof. Sudhir Ghopade, Prof. V D Pathak, Prof. Katre, Prof. Sankaran and Mr. Sanjeev Deshpande**. The **agenda of the** meeting was to improve the quality of mathematics and to develop pure and applied mathematics.

Second day of the conference opened and concluded with paper reading sessions, in which around 45 papers were presented in various disciplines of Mathematics, Engineering and Sciences. **Dr. Renu Jain**, gave a talk on 'Mathematical modeling of some physical and physiological phenomena: A Fractional calculus approach' **Dr. K. R. Pardasani** gave a talk on 'Computational challenges in data sciences', **Dr. V. H. Pradhan** delivered a talk on 'Exact travelling wave solution of some nonlinear equation', **Mr. Girish Mishra** 'Cryptography: The role of Mathematics in smart world' and **Dr. P Chaturani** gave the talk on 'Engineering aspects of yoga asanas and weight lifting'

The third and the concluding day of the international conference started with the **inauguration of the symposium on 'Mathematical modeling of Ecological, Environmental and Biological systems'**. The discussions in the symposium mainly focused the environment of Rajasthan and mathematical modeling of the related problems which the people of the state are facing. Prof. Rattan K. Datta, expert of weather forecasting and present Director, MERIT, New Delhi, discussed 'Weather forecasting using mathematical modeling'. The conference closed with the valedictory function. The chief guest of the Valedictory function was **Dr. Rattan K. Datta**. The report of the three days international conference was presented by **Dr. Nupur Srivastava**, Program chair of the conference. **Dr. Mahesh Bundeale**, Dean (R & D), and General Chair of the conference, showed his interest in having more such associations with Gwalior Academy in future also. Around 200 participants across the world attended the conference and 95 papers were read in 15 sessions. Valedictory session ended with the vote of thanks by **Dr. Shilpi Saxena**, Organizing Chair of the conference.



