



Math in Action

23 Aug 2014

WORKSHOP REPORT

Brindavan Campus

Department of **Mathematics & Computer Science**

GENESIS

It has been a goal of the department to conduct activities that would help in expanding the outlook of the students towards the subjects of Mathematics and Computer Science. Through activities such as workshops, seminars and symposiums, the students are able to have a better appreciation of the knowledge that they encounter in the classroom. When the students watch and hear how the theory learnt in the classrooms is put in action in the real world, their attitude improves and their learning is enhanced.

INTRODUCTION

The aim of the Workshop 'Math in Action' was to highlight the application of mathematical concepts in problems of everyday life. Accordingly, four areas were chosen:

- » Healthcare
- » Insurance
- » eCommerce
- » Cryptography

SSSIHL Alumni, currently working in various prestigious Institutions in the following fields, were requested to speak:

Healthcare :

- » Ganeshkumar M R – Senior Design Engineer, GE Healthcare, Bangalore
- » Ashok Reddy - System Specialist, GE Healthcare MRI, Bangalore

Insurance :

- » Phaneekrishna - Actuarial Analyst
- » Santosh S - Actuarial Advanced Analyst, Ernst Young, Hyderabad



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Ecommerce:

» Praveen K - Algorithm Engineer, Adobe Systems Inc., Bangalore

SUMMARY OF THE TALKS

Session I

MATHEMATICS - THE HEALTHCARE DNA by Ganesh Kumar M R & Ashok Reddy

The speakers highlighted the role of Mathematics in Magnetic Resonance Imaging and its applications in the health care industry. They emphasized the importance and use of Fourier transforms and Fourier series.

Session II

HARDY-RAMANUJAN CIRCLE THEOREM by Srivatsa V

The talk highlighted concepts from Number theory and especially the contribution of Sri Ramanujan to this branch. The speaker highlighted logic and theorem proving techniques through Ramanujan's Circle Theorem. He also touched upon their relevance to Cryptography.

Session III

COMPUTATIONAL ADVERTISING by Praveen K

The speaker dealt upon the marketing strategy and business practices of Google and Adobe. The focus of the talk was Online and Display Advertising achieved through application of Machine Learning techniques and Statistical Modeling Languages.