Brief Report of ‘Lecture Workshop on Mathematics’ organized by Department of Mathematics, Karnatak University, Dharwad, 24-26 September 2011 under Science Education Programme

Lecture workshop on Mathematics supported by three Science Academies viz, Indian Academy of Sciences, (Bangalore), Indian National Science Academy (New Delhi) and National Academy of Sciences, India (Allahabad) was organized for three days during September 24-26, 2011.

The aim of the workshop was at the discussion of newly emerging topics in mathematics with the relevance to courses offered in UG and PG Programme leading to Research in Mathematics. Eminent mathematicians delivered lectures for three days and interacted with students for presenting a flavor of these topics during September 24-26, 2011 from 9 a.m to 6 p.m. in an accessible form.

Nearly 120 Research and P.G. students from Department of Mathematics, Statistics and Computer Science and Senior B.Sc. students from Colleges in Hubli-Dharwad attended these Lectures.

The Inauguration of the programme was on 24th September at 10.30 a.m. eminent Scientist and Educationist; Prof. M.I. Savadatti was the Chief Guest. Prof. S. Thangavelu was Guest of Honour and Honourable Vice-Chancellor Prof. H.B. Walikar presided over the function. Chief Guest and president elaborated effectively about the importance of exploring students to new topics and studying all topics in depth. They appreciated the support of Science Academies in arranging such programme at Department of Mathematics, K.U. Dharwad.

Department students (M.Sc final) gave Invocation. Prof. B. Basavanagoud, Chairman, and Coordinator, Department of Mathematics, welcomed the guests and students, Prof. S.S.Benchalli, introduced the Guests and Prof. N.M. Bujurke, Convenor explained the activities
of Science Academies for the academic benefit of students. Dr. D.G. Prakash concluded the programme and Dr. (Mrs.) Renuka Dyavanal proposed vote of thanks.

Spread over three days 17 lectures were delivered. On first day, there were five lectures and 2\textsuperscript{nd} and 3\textsuperscript{rd} day six lectures each respectively. Professor S. Thangavelu, I.I.Sc., Bangalore, gave three lectures on Function spaces arising in Harmonic analysis and also touched other relevant topics.

Prof. S.S. Benchalli, (K.U.D) gave a talk/lecture on Overview of General Topology and Fuzzy topology. Prof. H.B. Walikar, Honourable Vice-Chancellor, Karnataka University, Dharwad, gave his inspiring lecture on P v/s NP Problems, Prof. S.S. Bhoosnurmath lectured on salient features of Analysis.

On 24\textsuperscript{th} and 25\textsuperscript{th} there were six lectures each day, Prof. P.S. Datti, TIFR, Bangalore, gave four lectures on Hyperbolic/Wave equations and Linear Algebra. Prof. Vasudevmurthy, TIFR, Bangalore talked on parabolic/heat equations as well as on applications of Graph theory in Google in his three lectures. Prof. Veerappa Gouda, TIFR, Bangalore gave three lectures on Elliptic/potential equators. Prof. N.M. Bujurke (KUD) talked on Ramanujan: a glimpse of his life and his mathematics.

Concluding / Valedictory function was held at 6.30 PM on 26\textsuperscript{th} September and all Invited Speakers from TIFR were the Guests. A feedback from students was arranged during this function. Prof. Basavanagoud, Chairman, Department of Mathematics and coordinator presided over the function.
Day-1: 24-09-2011, Saturday.

- 8:30AM to 9:00AM - Breakfast.
- 9:00AM to 10:00AM - Registration.
- 10:00AM to 11:00AM - Inaugural Function.
- 11:00AM to 11:30AM - Tea Break.
- 11:30AM to 12:30PM - Lecture No.1: Dr. S. Thangavelu, IISc, Bangalore. 
  Title: Function Spaces in Harmonic Analysis.
- 12:30PM to 01:30PM - Lunch Break.
- 01:30PM to 02:30PM - Lecture No.2: Dr. S. S. Benchalli, K.U. Dharwad.
  Title: An Overview of General and Fuzzy Topology.
- 02:30PM to 03:30PM - Lecture No.3: Dr. S. Thangavelu, IISc, Bangalore.
  Title: Function Spaces in Harmonic Analysis.
- 03:30PM to 04:30PM - Lecture No.4: Dr. H. B. Walikar, Vice-Chancellor, K.U. Dharwad.
  Title: P and NP Problems
- 04:30PM to 05:00PM - Tea Break.
- 05:00PM to 06:00PM - Lecture No.5: Dr. S. S. Bhoosnurmath, K.U. Dharwad.
  Title: Analysis


- 08:30AM to 09:30AM - Breakfast.
- 09:30AM to 10:30AM - Lecture No.6: Dr. S. Thangavelu, IISc, Bangalore.
  Title: Function Spaces in Harmonic Analysis.
• 10:30AM to 11:30AM- Lecture No.7: **Dr. P. S. Datti**, TIFR, Bangalore. 
  **Title:** Hyperbolic/Wave equations.

• 11:30AM to 12:00PM - Tea Break.

• 12:00PM to 01:00PM- Lecture No.8: **Dr. G. D. Veerappa Gowda**, TIFR, Bangalore. 
  **Title:** Laplace/Potential Equations.

• 01:00PM to 02:00PM - Lunch Break.

• 02:00PM to 03:00PM- Lecture No.9: **Dr. A. S. Vasudeva Murthy**, TIFR, Bangalore. 
  **Title:** Parabolic/Heat Equations.

• 03:00PM to 04:00PM- Lecture No.10: **Dr. P. S. Datti**, TIFR, Bangalore. 
  **Title:** Hyperbolic/Wave equations.

• 04:00PM to 04:30PM - Tea Break.

• 04:30PM to 05:30PM- Lecture No.11: **Dr. G. D. Veerappa Gowda**, TIFR, Bangalore. 
  **Title:** Laplace/Potential Equations.

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**Day-3: 26-09-2011, Monday.**

• 08:30AM to 09:30AM – Breakfast.

• 09:30AM to 10:30AM- Lecture No.12: **Dr. G. D. Veerappa Gowda**, TIFR, Bangalore. 
  **Title:** Laplace/Potential Equations.

• 10:30AM to 11:30AM- Lecture No.13: **Dr. A. S. Vasudeva Murthy**, TIFR, Bangalore. 
  **Title:** Parabolic/Heat Equations.

• 11:30AM to 12:00PM - Tea Break.

• 12:00PM to 01:00PM- Lecture No.14: **Dr. P. S. Datti**, TIFR, Bangalore. 
  **Title:** Linear Algebra.

• 01:00PM to 02:00PM - Lunch Break.

• 02:00PM to 03:00PM- Lecture No.15: **Dr. A. S. Vasudeva Murthy**, TIFR, Bangalore. 
  **Title:** Applications of Graph Theory in Google

• 03:00PM to 04:00PM- Lecture No.16: **Dr. P. S. Datti**, TIFR, Bangalore. 
  **Title:** Linear Algebra.

• 04:00PM to 04:30PM - Tea Break.

• 04:30PM to 05:30PM- Lecture No.17: **Dr. N.M. Bujurke**, K.U. Dharwad. 
  **Title:** Ramanujan; Glimpse of his life and his work

• 05:30PM to 06:30PM - Valedictory Function.
List of Speakers / Resource persons

1. Prof. S. Thangavelu, IISc, Bangalore,
   (3 Lectures)
2. Prof. G. D. Veerappa Gowda, TIFR, Bangalore,
   (3 Lectures)
3. Prof. A. S. Vasudeva Murthy, TIFR, Bangalore,
   (3 Lectures)
4. Prof. P. S. Datti, TIFR, Bangalore,
   (4 Lectures)
5. Prof. H. B. Waliak, Vice-Chancellor, K.U. Dharwad,
   (One Lecture)
6. Prof. S. S. Benchali, K.U. Dharwad,
   (One Lecture)
7. Prof. S. S. Bhoosnurmath, K.U. Dharwad,
   (One Lecture)
8. Prof. N. M. Bujurke, K.U. Dharwad,
   (One Lecture)