

Prayer Song



Lighting of the Lamp by delegates

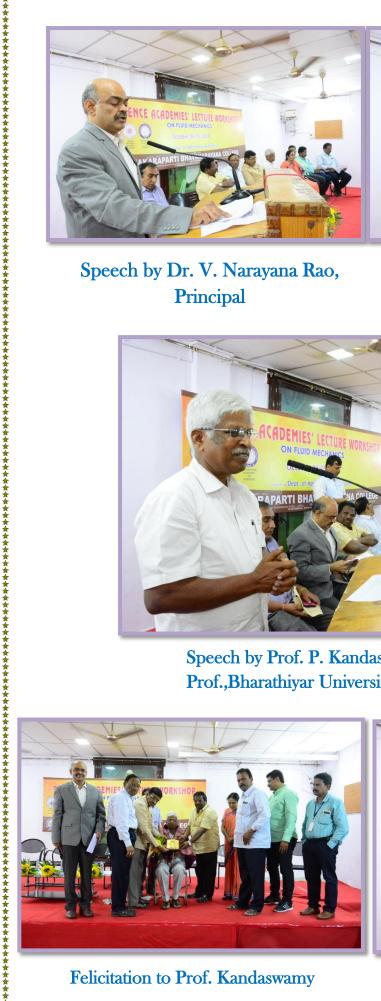


Speech by Dr. V. Narayana Rao, **Principal**

Theme of the Workshop by Dr. K. Naveen Kumar, Co-ordinator & Vice - Principal



Speech by Prof. P. Kandaswamy, Former Prof., Bharathiyar University, Coimbatore



Felicitation to Prof. Kandaswamy



Vote of thanks by Sri M. Venkateswara Rao, Head, Dept. of Mathematics



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Prof. P. Kandaswamy, Former Prof., Bharathiyar University, Coimbatore on "Upper Atmosphere Waves"



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Participants at the Technical Session





Prof. S. Sreenadh, Head, Dept. of Mathematics, Sri Venkateswara University, Tirupathi on "Mathematical Modeling in Bio – Fluid Flows"



Technical Session – II Lecture - I



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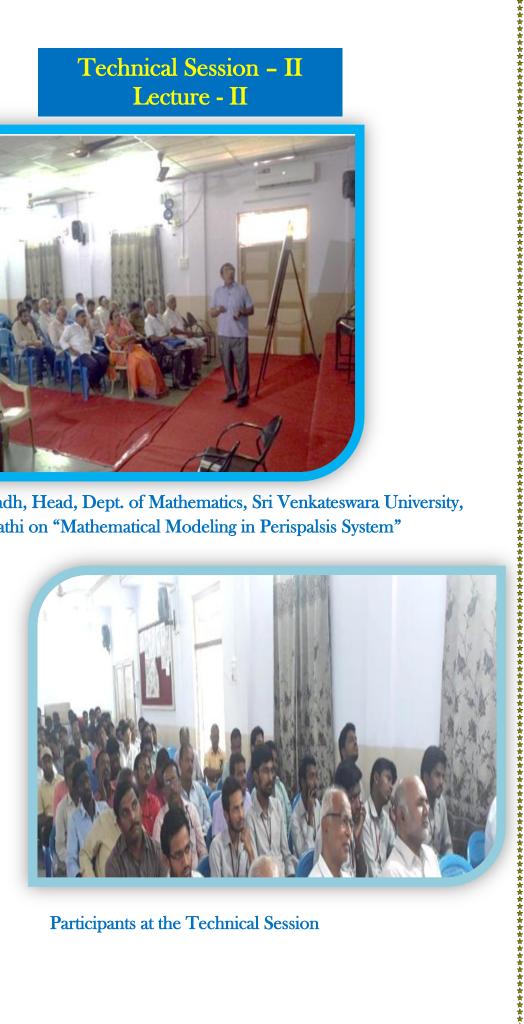
Prof. B. Sri Padmavathi, Prof. in Maths, School of Mathematics & Statistics, University of Hyderabad, on "An approximation analytical method of BVP's in Stoke flows"







Prof. S. Sreenadh, Head, Dept. of Mathematics, Sri Venkateswara University, Tirupathi on "Mathematical Modeling in Perispalsis System"



Participants at the Technical Session





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Dr. Satyajit Roy, Dept. of Mathematics, Indian Institute of Technology, Madras, Chennai on "Lamb's Solution"



Technical Session - II



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Prof. P. Kandaswamy, Former Prof., Bharathiyar University, Coimbatore on "Gravity Wave Critical Levels"



Technical Session - III



Prof. B. Sri Padmavathi, Prof. in Maths, School of Mathematics & Statistics, University of Hyderabad, on "The General Solutions of Oseen Equations – Some Recent Results"

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Technical Session - IV



Dr. Satyajit Roy, Dept. of Mathematics, Indian Institute of Technology, Madras, Chennai on "Uniform Mass Transfer through Slot"

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Valedictory



Presidential Remarks by Dr. V. Narayana Rao, Principal



Speech by Prof. B. Sri Padmavathi







Feedback from participants



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Science Academies' Lecture Workshop on

"Fluid Mechanics"

Organized by: Dept. of Mathematics & Statistics 4th & 5th October, 2018

Funded by

Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi, The National Academy of Sciences, Allahabad

<u>report</u>

A two day lecture workshop on "Fluid Mechanics" was held on 4th & 5th October, 2018 at KBN College, Vijayawada, Andhra Pradesh by Department of Mathematics and Statistics, KBN College in association with Indian National Science Academy, New Delhi, The National Academy of Sciences, Allahabad and Indian Academy of Sciences, Bangalore. The workshop has been organized in accordance with the regulations as prescribed by IASC.

Prof. P. Kandasamy, Former Professor Bharathiar University, Coimbatore, Tamil Nadu, and Visiting Fellow of Dishisha University, Kyoto was the workshop Convener. The eminent academician Dr. Satyajit Roy, Department of Mathematics, Indian Institute of Technology Madras, Chennai. Prof., S. Sreenadh, Head, Department of Mathematics, Sri Venkateswara University, Tirupathi, Andhra Pradesh, Prof., B. Sri Padmavathi, School of Mathematics and Statistics, University of Hyderabad, Telangana. Fellows from Science Academies' from reputed institutions were invited for the workshop to disseminate the proposed concepts to the participants.

The two day lecture workshop was started with a brief inaugural ceremony by a Tagore song presented by the students of the Department of Mathematics and Statistics, KBN College. The lecture workshop was then officially inaugurated by the Convener of the Programme Prof. P. Kandasamy by lighting the lamp. The Coordinator of the lecture workshop Dr. K. Naveen Kumar, delivered the welcome address. The resource persons were introduced by Smt. Ch. Radhika, Lecturer in Statistics, KBN College.

The key-note address was given by the Convener of the workshop Prof. P. Kandasmy, Former Prof., Bharathiar University, Coimbatore, Tamil Nadu, Visiting Fellow Dishisha University, Kyoto. He elaborated on the academies' effort and objective in coming

up with this "Lecture Workshop" program. He also talked about the contribution of eminent scientists to the Science Academies different activities, fellowships offered by the academies, journals published by the academies, etc., and on behalf of the organizing committee he thanked all the three Science Academies for their support to the college for hosting this meeting. He advised the students to develop a mind-set of asking questions, to be involved in research activities in the form of Summer Projects and have patience in their pursuit of science.

<u>Technical Session – I – Day – I – 5th October, 2018</u>

Lecture – I:

After the introductory session all the dignitaries including the participants enjoyed the high tea and the main technical session started at 10.00 AM. The first of the scheduled four lectures (each of one hour and fifteen minute's duration) of the day was given by eminent scientist Prof. P. Kandasamy, on "Upper Atmosphere Waves". In his lecture he introduced different simple vectors and partial derivations. Participants listened to his mesmerizing talk and enjoyed it thoroughly.

Lecture – II:

The second Lecture of the day was delivered by Prof., S. Sreenadh, Head, Department of Mathematics, Sri Venkateswara University, Tirupathi, Andhra Pradesh on "Mathematical Modelling in Bio – Fluid Flows" at 11.30 AM. He explained to the participants about the basics of pulse waves as most of the all the participants were not completely aware about the pulse waves in fluid mechanics. Then gradually he introduced the concept of microcirculation. Participants were very much excited to know about this in fluid mechanics.

Technical Session - II

Lecture – I:

The post lunch technical session started at 2.00 PM during which where again two lectures were delivered. The first lecture of this session (3rd of the day) was given by Prof., B. Sri Padmavathi, School of Mathematics and Statistics, University of Hyderabad, Hyderabad, Telangana. She talked about "An approximation analytical method for BVP's in Stokes flows" with very simple examples, which attracted the audience remarkably and they enjoyed this critical phenomenon with a great pleasure.

<u>Lecture – II:</u>

Prof., S. Sreenadh, Head, Department of Mathematics, Sri Venkateswara University, Thirupathi, Andhra Pradesh delivered the last lecture of the day entitled "Mathematical Modelling in Perispalsis Systems" at 3.30 PM. The participants were highly benefited by his simple analysis of the complex aspect of the topic.

Sometimes he crossed the boundary line of fluid mechanics in order to inspire the students with quotations of great personalities and the students greatly appreciated his lecture. The most interesting and fruitful part of the workshop was the interaction session which took place initially after each lecture and then at the end of the technical session with all resource persons together. With a high note of inspiring discussions and expectations of many more to come on the next day, the first eventful day of the workshop came to an end.

DAY - II - 6th October, 2018 - Technical Session - I

<u>Lecture – I:</u>

The second day of the workshop started sharply at 09:30 A.M. with a fascinating lecture by Dr. Satyajit Roy, Department of Mathematics, Indian Institute of Technology Madras, Chennai on "Lamb's Solution" where he discussed about inconsistency and inadequacy in Lamb's solution.

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<u>Lecture – II:</u>

A tea break was thoroughly enjoyed after the first lecture with a fruitful interaction among the participants and the speakers in a very friendly environment. Thereafter Prof. P. Kandasamy, Former Prof., Bharathiar University, Coimbatore, Tamil Nadu gave the 2nd lecture of the day entitled "Gravity Wave Critical Levels". He explained how the bio fluids are classified as Newtonian and Non - Newtonian fluids and its tremendous application in practical field were clearly explained to the audience.

Lecture – III:

A good lunch was provided at the end of the second lecture. Prof., B. Sri Padmavathi, School of mathematics and Statistics, University of Hyderabad, Hyderabad, Telangana impressed the participants by her talk on "The General Solutions of Oseen Equations – Some Recent Results".

Lecture – IV:

The last & the final lecture of the day, as well as the workshop, was delivered by Dr. Satyajit Roy, Department of Mathematics, Indian Institute of Technology Madras, Chennai on a very useful topic "Uniform Mass Transfer through Slot", which elaborated the basic fluid mechanics. The graduate students got immensely benefited with this last lecture of the workshop.

Feedback Session:

In the brief feedback session, which was held at the end of second day sessions, students as well as teachers of different Colleges came to a unanimous view regarding the high utility of the Workshop. All of them expressed their thankfulness to the Academy for arranging a workshop in an area like Vijayawada, Andhra Pradesh. The questions which were asked on the subject of fluid mechanics as well as sometimes outside of fluid mechanics proved the participants' concern for updating their knowledge and also about their future career, as most of them came from rural background. The coordinator and resource persons felt that the joint interaction session was a very useful part of the workshop.

Students and faculty who participated in the workshop gave their feedback. They said that all the sessions were highly interactive and the resource persons are knowledgeable and inspiring. The sessions were well organized and the theme was conveyed effectively to disseminate the objectives of the workshop. They also mentioned that the workshop was very helpful to the students and faculties, as they were exposed to the interdisciplinary nature of research. They felt that the workshop was well organized. We thank the three Science Academies' for their support

After two eventful days the Workshop came to its final end with the vote of thanks rendered by Dr. K. Naveen Kumar, Coordinator of the programme, Vice – Principal & Lecturer,

Department of Mathematics and Statistics, KBN College. The Lecture workshop ended with everyone participating in Indian National Anthem.

Number of Participants who attended the lecture workshop

The list of participants including faculty members, research scholars and students from various institutions in and around the host institution is given below. A total of one hundred and thirty two participants attended the workshop. No registration fee has been charged from the participants for attending the lecture workshop.

S. No.	Name of the College / Institute	No. of Participants
1	A. G & S. G. SIDDHARTHA DEGREE COLLEGE	3
2	A.N.R.COLLEGE	1
3	ACHARYA NAGARJUNA UNIVERSITY	4
4	AG &SG S DEGREE COLLEGE VUYYURU	1
5	ALIET VZA	1
6	ANDHRA LAYOLA COLLEGE	11
7	ANDHRA LOYOLA INSTITUTE OF ENGINEERING	
	AND TECHNOLOGY	2
8	ANR COLLEGE	1
9	B V C COLLEGE OF ENGINEERING	1
10	BAPATLA ARTS AND SCIENCE COLLEGE	1
11	BAPATLA ENGINEERING COLLEGE	2
12	BCAS, BAPATLA	1
	BHAGAWAN SRI SATYA SAI BABA DEGREE	
13	COLLEGE,	1
	TADIKONDA	
14	C. R. COLLEGE	2
15	CH.SD.ST.THERESA'S COLLEGE	2
16	DHANEKULA ENGINEERING COLLEGE	2
17	DHARMA APPA RAO COLLEGE,NUZVID	1
18	DR. LHR GDC, MYLAVARAM	1
19	DRNSCVS COLLEGE	1
20	G.PULLA REDDY ENGINEERING COLLEGE	1
21	GOVERNMENT DEGREE COLLEGE FOR WOMEN	1
22	GOVT DEGREE COLLEGE	1
23	GOVT DEGREE COLLEGE FOR GIRLS BAPATLA	1
24	HINDU COLLEGE GUNTUR	1
25	IDEAL COLLEGE OF ARTS & SCIENCES	4
26	SHINE COLLEGE	7
27	KLUNIVERSITY	1
28	KTR WOMENS COLLEGE GUDIVADA	1

29 TECHNO		
29 IECHN	OLOGY	1
30 MARIS	STELLA COLLEGE	4
31 MONTE	SSARI MAHILA KALASALA	2
MOTHE	R THERESA INSTITUTE OF SCIENCE AND	
32 TECHNO	OLOGY	1
33 NALAN	DA DEGREE COLLEGE	2
34 NARAS	ARAOPETA ENGINEERING COLLEGE	1
35 NOBLE	COLLEGE, MACHILIPATNAM	1
36 NRI INS	TITUTE OF TECHNOLOGY	2
37 PB SIDE	DHARTHA COLLEGE	5
38 PBN CO	LLEGE,NIDUBROLU.	1
39PSCMR	COLLEGE	8
	KANURU	1
	MAHILA KALASALA	1
	COLLEGE NARASARAOPET	2
	DEGREE COLLEGE.BADVEL	1
	COLLEGE	2
	COLLEGE,NARASARAOPET	2
	&DR.K.S.RAJU ARTS&SCIENCE	1
COLLEC	,	
	A COLLEGE	1
	LLEGE VIJAYAWADA 1	1
	GREE COLLEGE	2
	EGREE COLLEGE, BADVEL	1
	DDHARTHA MAHILA KALASALA	2
	LLEGE, JAGGAIAHPETA	<u> </u>
	ARTHA COLLEGE	<u> </u>
ELURU	R REDDY AUTONOMOUS COLLEGE,	1
	ENTELA SAKUNTALAMMA COLLEGE	2
	N M GOVT . DEGREE COLLEGE	1
	ANAKYA DEGREE COLLEGE	1
58 SRI D KALAS		1
	VR GOV.DEGREE COLLEGE	5
	DR KS RAJU ASS	2
	GOVT DEGREE COLLEGE	2
	NDU COLLEGE	2
63 V R COI		1
	DHARTH ENGINEERING COLLEGE	3
	N UNIVERSITY	1
	N'S FOUNDATION FOR SCIENCE	-
	OLOGY	1

	AND RESEARCH	
67	VKR COLLEGE GANAVARAM	1
68	VRS&YRN COLLEGE,CHIRALA	2
69	VRSEC	2
70	ANDHRA LAYOLA COLLEGE (PG Students)	18
	AND RESEARCH VKR COLLEGE GANAVARAM VRS&YRN COLLEGE,CHIRALA VRSEC ANDHRA LAYOLA COLLEGE (PG Students)	