

FACULTY OF ENGINEERING & TECHNOLOGY (CO-EDUCATION)
DEPARTMENT OF BASIC SCIENCE
DEPARTMENT ACTIVITIES FOR THE ACADEMIC YEAR 2022

Sl. No.	Name of the Activity	Date
01	Three Day National Conference on "Recent Advances in Fluid Dynamics and Material science"	1-7-2022 to 3-7-2022

Day - 1(1st July 2022) :-

Session: 1

Speaker: Dr. B.J Geerisha

Professor, Department of Mathematics, Kuvempu University, Shivamogga



Dr. B.J. Geerisha Sir has given a talk on Mathematical Modelling for fluid flow problems in which he has given a information about how to derive and deal with similarity transformation by taking an example of heat equation. Grouping of invariant variables. Common mistakes Observed in Non-dimensional numbers. And

also sir has advised new ways of research which will be very useful for the beginners in research field.

Session : 2

Speaker : Dr. Hanumagowda B.N

Professor, Department of Mathematics, School of Applied Sciences, Reva University, Bengaluru.



Dr. Hanumagowda B.N sir has given a talk on Combined effect of MHD couple stress and slip velocity on squeeze film lubrication between sphere and rough plates. Sir Has given brief introduction about surface roughness and couple stress. Sir, has also explained about types of roughness like radial roughness and azimuthal roughness etc. which was a very informative session.

Day - 2(2nd July 2022) : -

Session : 1

Speaker : Dr. Mahantesh Swamy

Assistant Professor, Department of Mathematics, Govt. College(Autonomous),
Kalaburagi



Dr. Mahantesh Swamy sir has given a talk on Combined effect of rotation and internal heat generation on Darcy - Benard convection. Sir has explained about the basic concepts of fluids such as stress, body force, surface force. Also given a brief basic information regarding viscoelastic fluids, Oldroyd fluids, Oldroyd B model and different modes of heat transfer like Conduction, Convection and Radiation. Advantages of convection over conduction, Rayleigh - Benard Convection, Darcy - Benard Convection, Porous medium etc. Over all the session was very informative and helped all the attendees in their research work.

Session : 2
Speaker : Dr. Vijaykumar Verma
Professor, Department of Mathematics, School of Applied Sciences, Reva
University, Bengaluru.



Dr. Vijaykumar Verma has given a talk on Dissipation effects on laminar viscous fluid flow in channels. And given an information about Basic equations in vector form of fluid dynamics. Sir, has explained in detail about basic conservation laws and porous medium by taking an example of flow through porous medium under the influence of aligned magnetic field with viscous, Darcy and Joule's dissipation. Sir has also given an information about how to take boundary conditions by taking different examples in different forms like spherical, cylindrical etc. It is very wonderful and informative session.

Session : 3
Speaker : Dr. Veena P.H
Professor, Department of Mathematics, Smt. V.G. Womens College, Kalaburagi



Dr. Veena P.H madam has given a talk on Power series solution method to solve research problem. Madam has explained how to choose the title and explained in brief about how to solve the momentum and energy equation using boundary conditions. And also madam has given a detailed explanation about solution methodology. Very effective and informative session.

Session : 4

Speaker : Dr. Mahantesh M. N

Assistant Professor, Department of Mathematics, Govt. College(Autonomous),
Kalaburagi

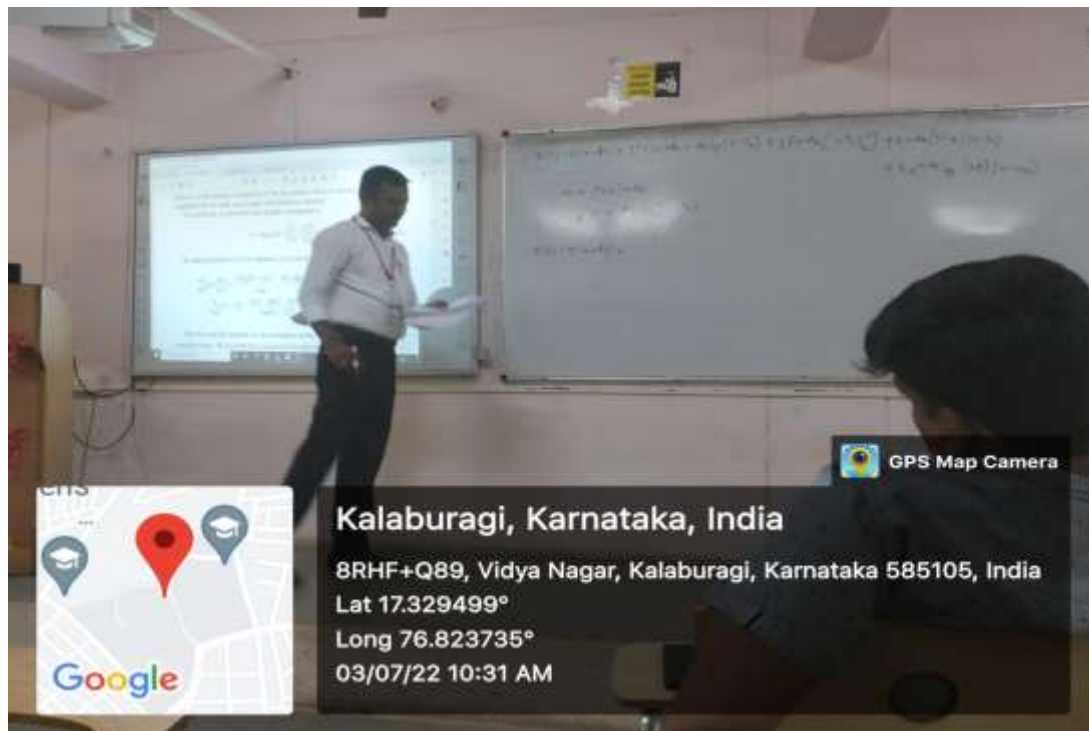


Dr. Mahantesh M.N sir has given a talk on Solution of Boundary value problem. Sir has explained effectively the basic about how the research begins, starting with assumptions, considering the conditions and analyzing different solution methods. Dimensional homogeneous. And also sir has explained the common mistakes observed in non-dimensional numbers. And also given brief information regarding boundary value problems and solutions by shooting method and Finite difference method. Very effective and informative session.

Day - 3 : Oral Presentation



1. Analysis of Heat Transfer through porous Fin



2. Theoretical analysis of MHD effects on curved circular plate and rough flat plate with non-Newtonian fluid.



3. The influence of MHD on rough pivoted curve slider bearing lubricated with couple stress fluids.



4. “Non-Newtonian Flow with heat transfer over a porous stretching sheet under the effects of space dependent and temperature gradient dependent heat sink, non uniform heat source and dissipation of energy with suction/blowing”

