



KONGUNADU ARTS AND SCIENCE COLLEGE

(AUTONOMOUS)

Re - accredited by NAAC with A+ grade (4th Cycle)

52nd Rank among Colleges in NIRF 2024

College of Excellence (UGC)

Coimbatore - 641 029

Tamil Nadu, India

Date: 04.10.2024

Time: 10.30 am

Venue: G5 Hall

DEPARTMENT OF MATHEMATICS

UNDER DBT STAR COLLEGE SCHEME

Organizes

ONE DAY SEMINAR

ON

***“Modern Algebra : Its Essence and Impact
on Real - Life Problems”***

Resource Person



Prof. Dr. P. Veeramani
Professor (Retd.,)
Department of Mathematics
IIT Madras
Chennai

**Topic: Linear Algebra and
its Application**

Resource Person



Dr. K. Kanagarajan
Associate Professor and Head
Department of Mathematics
Sri Ramakrishna Mission Vidyalaya
College of Arts & Science
Coimbatore.

Topic: Group and Ring Theory

Organizing Secretary

Dr. S.P.R.Priyalatha
Assistant Professor

Convenor

Dr. V. Kokilavani
Head of the Department

Patron

Dr.V. Sangeetha
Principal i/c

Chief Patron

Dr. C. A. Vasuki
Secretary & Director



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DBT STAR COLLEGE SCHEME

REPORT

Name of the Event	One Day Seminar On “Modern Algebra : Its Essence and Impact on Real - Life Problems”
Date	04.10.2024
Time	10.30 AM
Resource Person With Designation	Session :1 Topic : Group and Ring Theory Dr. K. Kanagarajan Associate Professor and Head Department of Mathematics Sri Ramakrishna Mission Vidyalaya College of Arts & Science Coimbatore. Session :2 Topic : Linear Algebra and its Applications Prof. Dr. P. Veeramani Professor (Retd.,) Department of Mathematics IIT Madras Chennai.
Venue of the Programme	G5 Hall
Objectives of the Programme	<ul style="list-style-type: none"> • Group theory studies the algebraic structures know as groups. • To develop procedural fluency in solving a variety of equations and inequalities,including linear, quadratic and rational. • To Learn about the applications of algebra in real life. • Applications of linear algebra to understand basic concepts such as vector spaces, linear dependence /independence of vectors, basis and linear maps.
Outcome of the Programme	To inculcate a deep research acumen in Mathematical science leading to innovative and path breaking research
Number of Beneficiaries with Class (Both Students and Faculty)	64 Students

Report of the Programme

Under the aegis of DBT Star College Scheme one day seminar on “Modern Algebra : Its Essence and Impact on Real - Life Problems” was organized by Department of Mathematics on 04.10.2024 at 10.30 am. In session 1 ” Dr.M.Vigneshwaran, Assistant Professor of Mathematics, Kongunadu Arts and Science, Coimbatore welcomed the gathering and introduced the resource person Dr. K. Kanagarajan, Associate Professor and Head of Mathematics, Sri Ramakrishna Mission Vidyalaya College of Arts & Science Coimbatore. The resource person delivered the concepts of groups is generally regarded as one of the most fundamental concepts in mathematics and it has many applications. He says that a ring is a kind of algebraic system with two operations (addition and multiplication). It has a deep relationship with groups, especially with the Abelian group. He also briefed basic knowledge of ring and its applications were discussed. Dr.M.Venkatachalam, Assistant Professor, Department of Mathematics, proposed the vote of thanks.

In session 2, Dr. L. Vidya Rani, Assistant Professor of Mathematics, Kongunadu Arts and Science, Coimbatore welcomed the gathering and introduced the resource person Prof. Dr. P. Veeramani, Professor, Department of Mathematics (Retd.), IIT Madras, Chennai. The topic is Linear Algebra and its Applications. He explained the graphical view of Linearly independent & Linearly dependent vectors. He explored the concepts such as product of vectors, multiplication of matrices with their geometrical interpretation. The use of linear combinations in neural networks was explained with different examples. The significance of matrices as pixel matrices in Image processing was discussed in brief. Solving systems of linear equations as solutions for various problems in different fields was explained with examples. The process of coding and decoding, concepts of cipher text , using inverse of matrices was explained with examples. Overall the importance of Linear Algebra in various emerging fields like Artificial Intelligence, Data Science etc. was explained with good examples. Totally the numbers of 64 students were benefited. Dr. P.Sathishmohan, Assistant Professor, Department of Mathematics, proposed the vote of thanks.

Session I



Inauguration of the program



Resource person Dr. K. Kanagarajan, has delivered the lecture

Session II



Welcome the Resource person Prof. Dr. P. Veeramani, Professor (Retd.), Department of Mathematics IIT Madras, Chennai and he has delivered the lecture.

