ST. FRANCIS DE SALES COLLEGE

A FRANSALIAN INSTITUTE OF HIGHER EDUCATION **AUTONOMOUS**

NAAC A GRADE ● AFFILIATED TO BANGALORE UNIVERSITY ● AICTE APPROVED ● 2(F) & 12 (B) RECOGNITION OF UGC ● ISO 9001:2015 CERTIFIED

📍 Electronics City P.O., Bengaluru - 560 100, Karnataka, INDIA   📞 (+91) 8088140679 ✉ pro@sfscollege.in 🌐 www.sfscollege.in

School of Science

Department of Physical Sciences and Mathematics

Title	Mathematical Roots for Agricultural Progress
Date of Event(s)	04/12/2024
Department/Association/Cell/Committee	Department of Physical science and Mathematics
Venue *(Mention the platform if it is online)*	Room no.-411
Number of Participants	66
Target Audience	UG and PG Mathematics Students

Resource Person(s) with qualification *(if applicable):*	

	-

Place of visit/ details of Industrial Visit place *(if applicable):*	-
Event Coordinator	Roopa J

Objective

The aim of the activity was to showcase the application of mathematical principles in addressing agricultural challenges, with an emphasis on student-led innovation and creativity.

Report:

"Mathematical Roots for Agricultural Progress" was a student-driven initiative designed to highlight the role of mathematics in enhancing agricultural practices. The event featured presentations by BSc final year Mathematics students, focusing on topics such as optimization techniques, predictive modelling, and sustainable agricultural practices.

They presented the following topics with the details

1. Mathematical Models for Optimizing Crop Yield

   The presentation explored how mathematical models can be leveraged to enhance agricultural productivity by optimizing crop yields. It highlighted the interplay between

data collection, mathematical analysis, and decision-making processes in modern farming practices.

2. Using Statistics to Predict Weather Patterns for Farming

   This presentation focused on the application of statistical tools to analyze weather patterns and predict climatic conditions crucial for farming activities. It highlighted the role of historical data, probability models, and trend analysis in aiding farmers to plan their activities and mitigate risks associated with unpredictable weather.

3. Irrigation Scheduling Using Mathematical Algorithms

   This presentation explored the use of mathematical algorithms to develop efficient irrigation schedules that conserve water while ensuring optimal crop growth. The students demonstrated how mathematical models can be applied to determine when and how much water to supply to crops, balancing resource efficiency with productivity.

The outcome of the program:

Participants understood the applications of mathematics in agriculture. Promoted interdisciplinary collaboration between mathematicians and agricultural scientists. Identified specific areas for future research and innovation.

Report Prepared by: Roopa J,

(Event Coordinator)

Report Verified by:

(HOD)

Report Approved by:

(Assistant Dean)

Attachments

Kindly **attach** the following supporting documents:

S. NO	Document	Format	Print/Drive
1	Brochure of the event	PDF	Drive
2	Circular of the event (Notifications from LT)	PDF	-
3	Geo-tagged photos/Screen Shots (Save as separate photos in IQAC drive)		Print (4 – 6 photos) & Drive
4	Attendance sheet with signature of the attendees (offline)/Consolidated Excel sheet of the registration and feedback forms (Online)	PDF / Excel Sheet	Print & Drive
5	Copy of the Certificate issued	PDF	-
6	Invitation and acceptance letter (or mail) of the Chief guest	PDF	-

7	Proof for honorarium given to the guest (Cheque or online payment details)	PDF	-
8	Registration details	PDF	-
9	Profile of the Resource Person	PDF	-

Dept. IQAC Coordinator   **IQAC Coordinator**