

## KONGUNADU ARTS AND SCIENCE COLLEGE

## (AUTONOMOUS)

#### **DEPARTMENT OF MATHEMATICS**

# ACTIVITIES CONDUCTED UNDER DBT STAR COLLEGE SCHEME- 2023-2024

## HANDS ON TRAINING

S. No.	Name of the Event/Activity	Date	Resource Person	Number of Beneficiaries	Outcome	
1.	Hands on Training on "Basics of MATLAB"	03.07.2023	Dr. R. Krishnasamy Department of Applied Mathematics and Computational Sciences, Assistant Professor (SG), PSG College of Technology, Coimbatore.	Maths: 47 Physics: 3 Chemistry:4 Computer Science: 4 Total: 58	The programme helped the participants in improving the usage of MATLAB software by covering the basics and functions of the software. This helped them to use this software in their projects and research.	
2.	Hands on Training on "R- Programming"	23.02.2024	<b>Dr. V. Kaviyarasu</b> Associate Professor of Statistics, Bharathiar University, Coimbatore.	44 Students	The students gained knowledge of data analysis, statistical modeling, visualization and interpretation of various statistical data through R-programming tools and packages.	
3.	Hands on Training on "LaTeX"	06.03.2024	Dr. J. Vernold Vivin Assistant Professor of Mathematics, Anna University Regional Campus, Coimbatore.	PSGR: 4 KASC: 39 Total: 43	The students learnt how to use the software for writing, drawing and documentation works.	
4.	Hands on Training on "Mathematical Modelling using MATLAB"	14.03.2024	Dr. L. Shangerganesh Assistant Professor & Head, Department of Applied Sciences, National Institute of Technology, Goa.	43 students	It helped the students to gain practical skills on using MATLAB for data processing, implementing algorithms, conducting experiments and analyzing research findings.	

5.	Hands on Training on "Microsoft Power BI"	27.03.2024	Dr. V. Radhamani Assistant Professor, Department of Mathematics, J. K. K. Nataraja College of Arts and Science, Komarapalayam, Namakkal.	35 students	The students gained knowledge on how to fetch the data, clean it, and process it in POWER BI which is useful in decision-making in data analytics.
6.	Hands on Training on "Data Analysis"	28.03.2024	Dr. Rajkumar Rajasekaran Associate Professor, School of Computer Science and Engineering, Vellore Institute of Technology, Vellore	KASC: 31 Govt Arts College: 6 Total: 37	Participants understood the concepts of data collection, data cleaning, data analysis and visualization using Python and R programming languages.

## CONFERENCES/ SEMINARS / WORKSHOPS ORGANIZED

S.	Name of the	Date	Resource Person	Number of	Outcome
No.	Event/			Beneficiaries	
	Activity				
1.	International Seminar on "Differential System and Its Applications	05.12.2023	Dr. Md. Golam Hafez Professor, Department of Mathematics, Chittagong University of Engineering and	Maths: 49 Physics: 13 Total: 62	Participants gained basic knowledge about differences between linear and non-linear equations, the Stability of the system and applications of Mathematical modeling in various biological domains.
			Technology, Chattogram-4349, Bangladesh.  Dr. R. Sakthivel Professor, Department of Applied Mathematics, Bharathiar University, Coimbatore		
2.	Capacity Building Programme "An Inter disciplinary Approach for Non- Mathematics Students".	11.12.2023	Dr. M. Thiruchelvi Department of Mathematics, Assistant Professor & Head, Sankara College of Science and Commerce,	Maths: 7 Physics: 5 Chemistry-2 Computer Science: 8 B. Com PA: 22 B. Com IT: 5 BBA CA: 20	<ul> <li>Students were taught to overcome math anxiety and to develop a mathematical mindset to take up higher education in science courses.</li> <li>They were advised to develop competencies in different skills of mathematical thinking</li> </ul>

			Coimbatore.	Total: 69	that enhances problem
			Dr. M. Parimala Department of Mathematics, Assistant Professor & Head, Bannari Amman Institute of Technology, Erode.	Total. 07	solving skills and Brainstorming activity.
3.	National Mathematics Day Celebrations - Contribution s of Srinivasa Ramanujan	22.12.2023	Dr. K. Balachandran Professor & Head (Retd.), Department of Mathematics, Bharathiar University, Coimbatore.	101 Students	Students learnt about the contributions of Srinivasa Ramanujan in the field of Mathematics which instilled interest toward the subject among the students.
4.	7 <sup>th</sup> International Conference on "Current Scenario in Pure and Applied Mathematics"	30.01.2024 31.01.2024	Dr.Dafik Professor of Mathematics, Combinatorics, Graph Theory and Network, Topology, Research Group, University of Jember, Indonesia.  Prof. Dr. Raúl M. Falcón Professor of Mathematics, University of Seville,Spain  Prof. Dr. Ismail Naci Cangul Department of Mathematics, Faculty of Arts and Science, Bursa Uludag University, Bursa, Turkey  Dr. V. Lokesha Department of Studies in Mathematics, Vijayanagara Sri Krishnadevaraya University, Ballari, Karnataka	63 participants	The participants enriched their knowledge and learned to exchange research ideas involving theoretical and applied developments in thrust areas of Mathematics. Also, ICCSPAM-2024 served as a platform for UG students to showcase their research outcomes and facilitate the exchange of insights into Mathematical analysis and Applications.
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			Computing (Cyber Security), Department of Electrical and Computer Engineering, Curtin University, Malaysia  Prof. Dr. M. H. Rahmani Doust Department of Mathematics, University of Neyshabur, Neyshabur, Iran.		
5.	National level Seminar on "Vedic Mathematics"	26.03.2024	Dr.Shiram Chauthaiwale All India Convener, Department of Vedic Mathematics, Shiksha Sanskriti Uthn Nyas, New Delhi.	92 participants	The students were taught to do speedy mathematical calculations which improve their critical and logical thinking that helps them to face various competitive exams.

## **INVITED LECTURES**

S. No.	Name of the event/Activity	Date	Resource Person	Number of Beneficiaries	Outcome
1.	Guest lecture on "Career Opportunities in Abroad"	07.08.2023	Mr. Bagavathiannan Palanisamy Software Deliver Manager DZS GmbH, Hannover, Germany	Maths: 65 Botany: 2 Physics: 4 Chemistry: 4 Computer Science: 4 Total: 79	Participants can able to identify various opportunities to pursue higher education in various science related courses abroad.
2.	Guest Lecture on "Applications of Mathematics in Image Processing"	30.08.2023	Dr. Suresh Rasappan Professor, Mathematics section, Department of Information Technology, University of Technology and Applied Sciences- IBRI Sultanate of Omen.	Mathematics (I UG: 11 II UG: 30 III UG: 32 Total: 73	The students learnt about image processing, Importing and Exporting images, Enhancing image, Detecting edges and shapes, Segmenting objects based on their color and texture in MATLAB which are widely used in their project works.
3.	Lecture Series	20.09.2023	Dr. M. Sambath	49 Students	The students studied the

	on Algebra &		Assistant Professor		basic concepts of
	Analysis I		of Mathematics, Periyar University, Salem.		complex analysis and various techniques to solve mathematical problems.
4.	Guest Lecture on "Students Project Ideas- Interdisciplinar y Approach"	21.09.2023	Dr. D. Sasikala Assistant Professor, Department of Mathematics, PSGR Krishnammal College for Women, Coimbatore	Mathematics: 54 Chemistry: 4 Computer Science: 11 Total: 69	The students were able to identify the problem, approach and analyze the problem and to learn the inter-disciplinary applications of the problem in various fields.
5.	A Lecture on "Design Thinking"	22.09.2023	Mr. M. Vivek Kumar Department of ECE, Innovation Head, Sri Eshwar College of Engineering, Coimbatore.	Mathematics: 58 Botany: 1 Total: 59	To aid design teams to create feasible and user focused solution to complex problems in design.
6.	A Guest Lecture on "Stress Management"	18.10.2023	Thiru. Sivakumar Yoga Therapist, Girinath Yoga Centre, Coimbatore.	Supportive Staff: 26	Participants were able to enhance their skills/ techniques to manage the stress effectively in their working environment.
7.	Lecture Series on Algebra and Analysis –II	29.01.2024	Dr. R. Rakkiyappan Assistant Professor, Department of Mathematics, Bharathiar University, Coimbatore -46	67 Students	Students were able to grasp the fundamental knowledge of Algebra and Analysis which forms the basic foundation to solve the mathematical problems.
8.	Lecture Series on Algebra and Analysis –III	13.03.2024	Dr. Gopikrishnan Chirappurathu Remesan Assistant Professor of Mathematics, Indian Institute of Technology, Palakkad.	55 Students	The UG students learnt the basic concepts of Linear Algebra that will help them to build a strong foundation on the subject.
9.	Lecture Series on Algebra and Analysis –IV	15.03.2024	Dr. K. Palpandi Assistant Professor (Grade II), Department of Mathematics, National Institute of Technology Calicut, Calicut - 673 601	60 Students	The B.Sc. Mathematics students studied the important concepts of Algebra through examples and problems.

## **EXHIBITION / COMPETITIONS CONDUCTED**

S. No.	Name of the event/Activity	Date	Number of Beneficiaries	Outcome
1.	Math Model Exhibition – School Students Visit	05.10.2023	35 School Students	The students of grade IX – XII from various schools visited the Mathematical model displayed in the department of Mathematics and explored the innovations. The visit made them develop creative thinking towards the subject and understand the basic concept clearly.
2.	National Mathematics Day Celebrations Inter-Departmental Competitions	09.01.2024	Mathematics: 34 Chemistry: 6 Physics: 1 Botany: 1 B. Com: 5 AI & ML: 5 Total:55	Participants got a platform to exhibit their skills and enhance their subject knowledge in mathematics.
3.	National Mathematics Day Celebrations Inter-School Competitions			
	Manculator		77 School Students	
	Math Model		62 School Students	
	Sudoku Star War of Words		86 School Students 35 School Students	School students were able to showcase their mathematical
	Formula Master		77 School Students	abilities, learn and explore
	Brain Teaser		60 School Students	interesting math games
	Master Mind		34 School Students	
	Math Art		88 School Students	
	Math Connection		88 School Students	
	Chess Wizard		107 School Students	

## TRAINING COURSES CONDUCTED

S. No.	Name of the event/ Activity	Date	Resource Person	Number of Beneficiaries	Outcome
1.	FDP on "Teaching Pedagogy"	21.10.2023	Dr. M. Balasubramanian Assistant Professor Department of Education Bharathiar University, Coimbatore.  Dr. B. Selvaraj Controller of Examinations, Government Arts College, Coimbatore.	36 Faculties from various Colleges.	Participants were able to enhance the skills/ techniques involved in using ICT class room teaching.
2.	FDP on Computational Mathematics using Python and SCILAB (Organized along with Department of Computer Science)	12.01.2024	Dr. V. Parthiban Assistant professor, School of Advanced Sciences, Vellore Institute of Technology, Chennai Campus.  Dr. T. Senthil Kumar Associate Professor, School of Computer, Amirtha Vishwa Vidhyapeetham, Coimbatore.	44 faculty	The faculty were exposed to and trained on the concepts of Mathematics which can be employed effectively by using Python and SCILAB.
3.	Teacher Induction Programme (Organized along with Department of Computer Science)	13.02.2024	Mr. N. Tamilselvan Assistant Headmaster & P.G. Assistant in maths, Government Higher Secondary School, Kalapatti, Coimbatore.  Dr. A. Chandran Former Head Master, CSI Boys Higher Secondary School, Erode. Former Dean(S&H), RVS Technical Campus, Coimbatore.	20 teachers from various Schools and colleges	School Teachers interacted with the Resource persons and learnt the art of effective classroom teaching.
4.	Summer Training Programme on "Pure and Applied Mathematics"	18.03.2024 to 22.03.2024	Prof. Dr. K. N. Ragavan Professor of Mathematics, The Institute of Mathematical Sciences, Chennai.  Prof. Dr. M. Sampath Assistant Professor of	KASC Students: 65 Other college: 11 Faculty: 11 Total: 87	This training programme will help the students to equip themselves with mathematical techniques, Analytical, logical, and computational skills in various areas of Mathematical

Mathematics, Periyar University, Salem.  Prof. Dr. M. Ganesh Kumar Assistant Professor of Mathematics, School of Engineering, AmirtaVishwa Vidyapeetham, Coimbatore.  Prof. Dr. K. Kaliraj Assistant Professor of Mathematics, Ramanujan Institute for Advanced Study in Mathematics, Chennai.  Prof. Dr. G. Nagamani Assistant Professor of Mathematics, The	domains. This in turn encourages the students to pursue higher education in this subject.

## **OUTREACH / EXTENSION ACTIVITIES**

S. No.	Name of the event/ Activity	Date	Number of Beneficiaries	Outcome
1.	Awareness Programme on Mathematics & Applications of Math Model for School Students	07-07-2023	42 School Students	The students at the school found engaging applications and concepts of mathematics in everyday life through innovative models and diagrams, igniting their curiosity and enthusiasm for learning the subject.
2.	Outreach Activity- School Visit- Books Distribution	02.09.2023	50 School Students	Book distribution to schools can contribute significantly to educational outcomes by enriching learning experiences, fostering academic achievement, and empowering students to reach their full potential.
3.	Youth Awakening Day 2023	16.10.2023	65 Students from various departments	The students learnt about the life of Dr. A. P. J. Abdul Kalam who serves to be a perfect example of how a human should develop into an individual and then into an influential leader.
4.	Activity Based Learning for Basic	02.03.2024	175 School Students	School students actively participated in the activities and learned the concepts in Mathematics with more interest.

Ī		Mathematics			
	5.	Mathematics Formula Book – ISBN	27.03.2024 30.03.2024	400 School Students	The students of Mathematics department prepared a Formula Book which would serve as a reference source for the students to face their higher secondary examination with good confidence.