

**ANNUAL REPORT 2017-2018
DEPARTMENT OF MATHEMATICS**

1. Introduction:

The Department of Mathematics was established in 1959 along with the institute. It offers the M.Sc. programme in Mathematics, the M.Tech. programme in Industrial Mathematics and Scientific Computing [IMSC] and the Ph.D. programme. In addition, the department has taken the responsibility of teaching mathematics courses to B.Tech., M.Tech. (other than IMSC), M.Sc. and Ph.D. students of the institute.

The major research areas of the department are the following:

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| <ol style="list-style-type: none"> 1. Algebraic Combinatorics 2. Algebraic Geometry 3. Algebraic Topology 4. Applied Probability 5. Approximation Theory 6. Category Theory 7. Combinatorial Optimization 8. Combinatorics 9. Combinatorics of Words 10. Commutative Algebra 11. Complex Analysis 12. Conformal Geometry 13. Contact and Symplectic Topology 14. Convective Heat & Mass Transfer 15. Computational Fluid Dynamics 16. Computational Number Theory 17. Cryptology 18. Differential and Integral Equations 19. Differential Topology 20. Fixed Point Theory 21. Fluid Mechanics 22. Functional Analysis 23. Fractals 24. Game Theory 25. Graph Algorithms | <ol style="list-style-type: none"> 26. Graph Theory 27. Harmonic Analysis 28. Inverse and Ill-Posed Problems 29. Linear Algebra 30. Low dimensional Topology 31. Mathematical Modeling 32. Mathematical Study of Ferromagnetic Networks 33. Nonlinear Analysis 34. Nonlinear Analysis of Functional Differential Equations 35. Nonlinear Differential Equations 36. Number Theory 37. Operator Algebras 38. Operator Equations 39. Operator Theory 40. Optimization 41. Partial Differential Equations 42. PDE Numerics 43. Solid Mechanics 44. Special Functions 45. Systems and Control Theory 46. Theory of Codes 47. Theory of Computation 48. Theory of Wavelets 49. Time Frequency Analysis 50. Wave Structure Interactions |
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2. Academic Programmes:

2.1 New discipline/branch introduced: -Nil-

2.2 New courses introduced

Sl.No	Course No	Title
1	MA2070	Differential Geometry of Curves and Surfaces

2.3 New lab(s) established: -Nil-

2.4 Students on roll as of September 2017+ Ph.D admission in January 2018:

Programme	Number of Students
M.Sc.	120
M.Tech.	21
Ph.D.	103
Total	244

2.5 Endowment prize instituted:

Sl.No	Endowment Prize	Purpose	To be awarded from
1	Smt. Lakshmikuttyamma and Shri A. Krishnakutty Nair Prize- instituted by Retired Professor Dr. P. Achuthan Dr. Monisha Roy, Ph.D scholar under supervision Prof. Satyajit Roy, Guide and Prof. Tanmay Basak, Co-Guide received the award for the year 2017	For the best Ph.D thesis in mathematics	From the 2013 Convocation

2.6 Names of Student/Scholar who attended Conferences/ /Seminars and Symposia Abroad/India:

Names of Student/Scholar who attended Conferences/ /Seminars and Symposi Abroad/India:

Sl. No.	Name of the Research Scholar	Roll No.	Name of the Conference/ Seminar / Symposia / Workshop and Venue	Date	Financial Assistant
Abroad					
1	Ms. Sangita Jha	MA14D017	Presented a paper titled 'Fractal approximants on the circle' in the 10 th International conference on "Chaotic modeling and simulation" at University of Zaragoza, Spain	28.05.2017 to 31.07.2017	Institute
2	Ms. Arundhathi Krishnan		Presented a paper titled "Determining elements of a Banach Algebra through Pseudospectra" at Szeged, Hungary	16/06/2017 to 23/06/2017	Institute
3	Ms. Lavanya S	MA14D014	Presented a paper titled "N-operators on Partially ordered Banach space" in the University of Alberta, Edmonton, Canada	17/07/2017 to 21/07/2017	
4	Mr. Komandla Mahipal Reddy	MA13D003	Interdisciplinary – International Conference on Applied Mathematics modeling and Computational Sciences at Waterloo, Ontario, Canada	18/08/2017 to 28/08/2017	
India					
Sl. No.	Name of the Research Scholar	Roll No.	Name of the Conference/ Seminar / Symposia / Workshop and Venue	Date	Financial Assistant
1	Mr. Abhishek Kesarwani	MA15D030	Attended the workshop on TEW Algebra, Discrete Mathematics, Complex Analysis at IMSc, Chennai	22.05.2017 to 27.05.2017	--
2	Mr. Abhishek Kesarwani	MA15D030	Attended Instructional Workshop on Cryptography (NIWC 2017) at LNM Institute of Information Technology, Jaipur, Rajasthan	02/07/2017 to 09/07/2017	
3	Ms. Samprita Das Roy	MA14D016	Research related visit to IIT Bombay	02.04.2017 to 14.04.2017	
4	Mr. Ajoy Jana	MA14D001	Attended a Workshop on AIS Linear Partial Differential Equation 2017 at TIFR CAM, Bangalore	19/06/2017 to 08/07/2017	
5	Mr. Subhajit Chanda	MA15D022	Attended a Seminar on Positive Characteristic Methods in Cumulative Algebra at IIT Bombay	18/06/2017 to 30/06/2017	
6	Ms. Susmita Agarwal	MA12D017	Presented a paper titled " Effect of the Shape Parameter of Infinitely Smooth Radial Basis Function while Capturing the Moving Interfaces"	11/07/2017 to 16/07/2017	
7	Ms. N. Poornapushkala		Presented a paper titled " On the semistability of certain Lazarsfeld Mukai Bundles on Abelian Surface	13.07.2017 to 14.07.2017	

8	Mr. A. Selvakumar	MA16D0	Attended a Seminar on ATMW Differential Geometry at IISER, Pune	24.07.2017 to 29.07.2017	
9	Mr. Mohit Kumar	MA15D203	Fractal Geometry : Foundations to Frontiers (GIAN Course) at IIT Madras	14/08/2017 to 31/08/2017	
10	Sri Ranjeet Kara Dharsanda	MA16D042	International Conference on Exploring the history of Indian Mathematics at IIT Gandhi Nagar, Gujarat	04.12.2017 to 06.12.2017	
11	Mr. Ranjeet Kara Dharsanda	MA16D042	Attended International Conference on Exploring the History of Indian Mathematics at IIT Gandhinagar, Gujarat	04/12/2017 To 06/12/2017	
12	Sri Amit Kumar Singh	MA14D008	AJMW Schubert Varieties – 2017 at IMSc Chennai	23/10/2017 to 04/11/2017	
13	Mr. SubhajtChanda	MA15D022	Attended National Conference on Commutative Algebra and Algebraic Geometry at IISER Pune	05/12/2017 To 08/12/2017	
14	Ms. Sushmitha P	MA16D007	Attended International Conference on Linear Algebra and Applications at Manipal Academy of Higher Education, Karnataka	09/12/2017 to 16/12/2017	
15	Mr. Arvind Kumar	MA16D012	Attended Workshop on Grobner Bases and their Applications at IIIT, New Delhi	11/12/2017 to 23/12/2017	
16	Mr. R. Vijayakumar	MA16D031	Attended GIAN Course on Quasi Conformal Mapping and Applications at IIT Indore	11/12/2017 to 16/12/2017	
17	Mr. Sarvesh Kumar	MA13D023	Attended an International Meet on Function Spaces and inequalities at 83rd Annual Conference of IMA at S.V. University Tirupati	12/12/2017 to 15/12/2017	
18		MA13D023	Attended 15th Discussion Meeting in Harmonic Analysis at IISc Bangalore	17/12/2017 to 22/12/2017	
19	Mr. Kuntal Som	MA15D019	Attended Game Theory Gurukulam at Pulavanur Village, Cuddalore	15/12/2017 to 01/01/2018	
20	Ms. Arati Shashi	MA14D009	Attended 15th Discussion Meeting in Harmonic Analysis at IISc Bangalore	18/12/2017 to 22/12/2017	
21	Ms. Parveena Shamim A	MA17D003	Attended Meshfree Particle Methods for Solving Fluid Dynamics Problem at NIT Calicut	18/12/2017 to 22/12/2017	
22	Ms. AratiShashi	MA14D009	Attended National Conference in Analysis at CMI, Chennai	23/12/2017	
23	Mr. Sampa Dey	MA15D005	Attended Workshop on Analytic Number Theory at ISI Kolkata	25/12/2017 to 30/12/2017	
24	Ms. Rohini S	MA17D017	Attended Regional Mini Workshop on Indian Women and Mathematics at CUSAT, Cochin	02/01/2018	
25	Mr. Debabrata De	MA15D001	Attended Quantum Groups & Non Commutative Geometry at NISER Bhubaneswar	14/01/2018 to 21/01/2018	
26	Mr. Repana Devendra	MA16D020	Attended International Workshop on Recent Advances in Operator Semigroups at University of Delhi, New Delhi	17/12/2017 To 22/12/2017	
27	Mr. Somnath Maity	MA16D201	Attended Conference on ' A Meshfree Particle Method for Solving Fluid Dynamics Problems at Nit Calicut	18/12/2017 to 22/12/2017	
28	Mr. Rahul Kumar R	MA15D015	Attended Conference on Quantum Groups and Non Commutative Geometry at NISER Bhubaneshwar	15/01/2018 to 19/01/2018	

29	Mr. Mohan Kumar Mallick	MA13D021	Research Colloboration on Nonlinear Elliptic Boundary Value problems with Dr. SarathSai, Assistant Professor, Department of Mathematics, IIT Palakkad	22/01/2018 to 05/02/2018	
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2.7 Names of students/scholars who won outside prizes and awards:-Nil-

2.8 Name of Students/Scholars who won Institute Convocation/Institute Day Prize:

SI.No.	Name of the Student/Scholar	Roll No.	Name of Prizes	Name of Donor
1	SAHIBA ARORA	MA15C037	GeethaRaghupathy Prize	Institute
2			LVKV Sarma Prize	Institute
3	RIMPA MONDAL	MA15M011	Institute Merit Prize	Institute
4			LVKV Sarma Prize	Institute

3. Faculty and their activities:

3.1. Faculty:

Name and Qualifications	Major area of specialization (only 3 areas)
PROFESSORS:	
Prof. Arindama Singh, Ph.D. (IIT Kanpur)	Logic, Numerical Analysis
Prof.S.H.Kulkarni, Ph.D. (IIT Bombay)	Functional Analysis, Numerical Analysis
Prof. S. Ponnusamy ,Ph.D. (IIT Kanpur)	Complex Analysis, Function Spaces, Special functions and Conformal Geometry
Prof. R. Radha, Ph.D. (IMSC Chennai)	Harmonic Analysis, Wavelets, Time-Frequency Analysis
Prof. R. Rama, Ph.D. (Anna University)	Formal Language & Automata Theory / Molecular computing
Prof. Y.V.S.S.Sanyasiraju, Ph.D. (IIT Madras)	Computational Fluid Dynamics
Prof. Satyajit Roy, Ph.D. (IISc. Bangalore)	Convective Heat and Mass Transfer, Computational Fluid Dynamics
Prof. K.C. Sivakumar, Ph.D. (IIT Madras)	Functional Analysis, Mathematical Programming
Prof. Ch.Srinivasa Rao, Ph.D. (IISc. Bangalore)	Non-linear Differential Equations
Prof. S. Sundar, Ph.D. (IIT Madras)	Computational Fluid Dynamics, Numerical Analysis for Partial Differential Equations, Mathematical Modeling
Prof. M.Thamban Nair, Ph.D. (IIT Bombay)	Applicable Functional Analysis: Spectral approximation, Operator equations, Inverse & Ill-posed problems.
Prof. R. Usha, Ph.D. (IIT Madras)	Fluid Dynamics

Prof. P. Veeramani, Ph.D. (IIT Bombay)	Fixed Point Theorems and their Applications to Problems in Optimization and Best Approximation, Fuzzy Set Theory
Prof. V. Vetrivel, Ph.D. (IIT Madras)	Non-Smooth Optimization, Fixed Point Theory, Complementarity problems
ASSOCIATE PROFESSORS:	
Dr. A.K.B. Chand, Ph.D. (IIT Kanpur)	Fractals, Approximation Theory and Wavelets
Dr. A.V.Jayanthan, Ph.D. (IIT Bombay)	Commutative Algebra and Algebraic Combinatorics
Dr. KalpanaMahalingam, Ph.D. (Univ. of South Florida, Tampa)	Theory of codes, DNA Computing, Combinatorics of words
Dr. S.R. Manam, Ph.D. (IISc, Bangalore)	Applied Mathematics
Dr. A.J. Shaiju, Ph.D. (IISc, Bangalore)	Game Theory, Systems and Control Theory
Dr. Shruti Dubey, Ph.D. (IIT Kanpur)	Nonlinear Analysis of Functional differential equations, Mathematical Study of Ferromagnetic systems
Dr. Sounaka Mishra, Ph.D. (ISI, Kolkata)	Discrete Mathematics, Approximation Algorithm , Combinatorial Optimization
Dr. R. Balaji, Ph.D. (IIT Madras)	Linear Algebra and Optimization
ASSISTANT PROFESSORS:	
Dr. T.V.Anoop, Ph.D.(IMSC, Chennai)	Linear and Nonlinear Partial Differential Equations, Nonlinear Functional Analysis
Dr. Arijit Dey, Ph.D.	Algebraic Geometry
Dr. Dipramit Majumdar Ph.D. (Brandeis University)	Algebraic Number Theory,p-adic aspects of modular forms and Galois representations
Dr. Kunal Krishna Mukherjee, Ph.D. (Texas, A&M)	Operator Algebras
Dr. N. Narayanan, Ph.D. (IMSC,Chennai)	Graph Theory: Graph Colouring, Structural and Extremal Graph TheoryProbabilisticCombinatorics. Discrete Mathematics
Dr. Neelesh S. Upadhye, Ph.D. (IIT Bombay)	Probability Theory and applications
Dr. Priyanka Shukla,Ph.D (JNCASR, Bangalore)	Fluid Mechanics: hydrodynamic instability; Nonlinear dynamics;Numerical PDE; Granular flows; Pattern formation
Dr. Santanu Sarkar, Ph.D. (ISI,Kolkata)	Cryptology & Computational Number Theory
Dr. Sarang S.Sane, Ph.D. (TIFR, Bombay)	Commutative Algebra, Homological Algebra, Algebraic K-theory, Algebraic Geometry
Dr. Sivaraman Ambikasaran, Ph.D (Stanford Univ.)	Numerical Linear Algebra, Fast Algorithms, and Scientific Computing
Dr. Soumen Sarkar Ph.D. (ISI, Kolkata)	Algebraic Topology, Geometric Topology, Differential Geometry, Convex Geometry, K-Theory, Topological Complexity, Persistent Homology, Ring of Continuous Functions
Dr. Sriram Balasubramanian, Ph.D. (University of Florida)	Functional Analysis

Dr. Suhas Jaykumar Pandit, Ph.D. (ISI, Bangalore)	Geometric group theory and low dimensional topology
Dr. Sumesh K. Ph.D (ISI, Bangalore)	Operator algebra
Dr. V.Uma, Ph.D. (IMSC Chennai)	Topology and Geometry of Toric Varieties and Related Spaces
Dr. T.E. Venkata Balaji, Ph.D. (CMI, Chennai)	Algebraic Geometry and Commutative Algebra
INSPIRE FACULTY:	
Dr. J. Jaikrishnan Ph.D (Indian Institute of Science, Bangalore)	Complex Analysis
VISITING PROFESSOR:	
Dr. S.Kesavan 01.02.2016 to 31.01.2017	Partial Differential Equation- Homogenization, Isoperimetric inequality
ADJUNCT PROFESSOR	
Dr. S.Kesavan 01.02.2017 to till date	Partial Differential Equation- Homogenization, Isoperimetric inequality
INSTITUTE PDF:	
Dr. Pabitra Barik 16.09.2014 to till date	Algebraic Geometry
4Dr. Manasi Kulkarni 01.02.2016 to till date	Combinatorics on kiords, Formal language and automata theory DNA computing
Dr.Pranav Haridas 01.07.2016 to till date	Several complex variables
Dr.J. Kokila 10.02.2017 to till date	Fractional Differential Equation

3.2. Short-term Courses/ Workshops/ Seminars/ Symposia /Conferences organized by the faculty members:

Sl. No.	Coordinator(s)	Title	Period
Conference:			
1	Prof. R.Usha	AICTE Sponsored Workshop on "Nonlinear Partial Differential Equations", Delivered 4 lectures on Nonlinear Conservation Laws	22/01/2018 to 27/01/2018
2	Dr. Ch. Srinivasa Rao Prof. Y.V.S.S. Sanyasiraju.	AICTE SPONSORED QIP SHORT TERM COURSE on " Non Linear Partial Differential Equations: Theory and Numerics ". The Short Term Course was attended by 35 teachers from Andhra Pradesh, Telegana and Tamil Nadu Colleges	22/01/2018 to 27/01/2018
3.	Prof. S. Sundar	AICTE SPONSORED QIP SHORT TERM COURSE on " Non Linear Partial Differential Equations: Theory and Numerics "	23/01/2018
4		GIAN Course coordinator "Advanced Mathematical Methods for Real Data Analysis"	05/03/2018 to 10/03/2018
5	Dr. A.K.B. Chand	GIAN course coordinator for "From Subdivision to Wavelets and Fractals"	04/12/2017 To 11/12/2017
		GIAN Course coordinator for "Fractal Geomtery: Foundations to Frontiers",	14/08/2017 to 31/08/2017

6	Prof. K.C. Sivakumar	GIAN course coordinator for " Matrices with Positive Principal Minors: Theory and Applications"	18/12/2017 to 22/12/2017
7	Prof. R. Usha	GIAN course coordinator for " Instability methods in Hydrodynamics"	18/12/2017 to 22/12/2017
8	Dr. N. Narayanan	GIAN course coordinator for "Graph Minors and Homomorphism : Correlation"	20/01/2018 to 02/02/2018
9	Dr. Santanu Sarkar and Dr. Dipramit Majumdar	"Forays 2018"	03/03/2018 To 04/03/2018
10	Prof. R. Usha / Dr. Priyanka Shukla	AICTE Sponsored STC on "Introduction to Hydrodynamic Stability" Two talks on (1) Derivation of Orr-Sommerfeld-Squire System (2)Linear Stability analysis: computation aspects (3) Tutorial Talk on Plane Poiseuille Flow,	28/3/2018 to 30/3/2018
11	Prof. R. Usha / Prof. S.H. Kulkarni	AICTE Sponsored Short Term Course on "Numerical Linear Algebra", Department of Mathematics, IIT Madras ,	19/03/2018 to 24/03/2018
12	Prof. R. Usha	AICTE Sponsored STC on Nonlinear PDE: Theory and Numerics, Department of Mathematics, IIT Madras,	22/01/2018 & 23/01/2018
13		Science Academies' Lecture Workshop on Differential equations and Dynamical Systems at The Madura College, Madurai Two talks on " Nonlinear Conservation laws	06/03/2018
14		AICTE Sponsored STC on Numerical Linear Algebra One talk on "The Power method"	22/03/2018
15		Department of Mathematics, Seminar, SAMVADA(Discussion) on Properties of Continuous Functions,	12/03/2018
16		Organized a Lecture Series by Prof. Alexander Oron, David T. Siegel Chair professor in Fluid Mechanics, Department of Mechanical Engineering, Technion- Israel Institute of technology, Haifa, Israel Prof. Oron visited the institute as Arcot Ramachandran Chair professor in the Department of mathematics, IIT Madras	15/02/2018 to 13/03/2018
17		Organized pedagogical workshop on Algebra and Linear Algebra at Kerala School of Mathematics, Kozhikode.	24/03/2018 to 26/04/2018

18	Dr. T. E. Venkata Balaji	Advanced Training in Mathematics National Workshop titled Annual Foundation School – II at Kerala School of Mathematics, Kozhikode, for PhD students. Supported by the National Centre for Mathematics IITB-TIFR Mumbai. Co-organizers: Prof. Manickam Murugesan, Director KSOM and Prof. Vijayarajan, KSOM	from May 08 to June 03
19		Refresher course in Advanced Analysis for College teachers working in Kerala state held at Kerala School of Mathematics, Kozhikode. Co-Resource-Person: Dr. J. Jaikrishnan, Inspire Faculty, IIT-Madras. Co-ordinators: Prof. Manickam Murugesan, Director KSOM and Prof. Vijayarajan, KSOM	During 09-12 November, 2017

3.3. Short-term Courses/ Workshops/ Seminars/ Symposia/ Conferences/ Training attended by the faculty members in Academic institutions and Public Sector Undertakings:

Sl. No.	Name of faculty	Title	Institution	Period
Workshop:				
1	Sumesh K	Advances in Noncommutative Mathematics	ISI Bangalore	January 11-13, 2017
		Quantum Probability: Past, Present and Future	ISI Bangalore	August 10-12, 2017
		Conference on Functional Analysis @ IIT Bombay – 2017	IIT Bombay	October 12-15, 2017
		International Workshop on Recent Advances in Operator Semigroups	University of Delhi	December 18-21, 2017
Symposia :				
1	Dr. P. Veeramani Dr. R. Usha	A Two Day Symposium on Non Linear Analysis & Fluid Dynamics	IIT Madras	30-31 March 2018
2	Dr. A.V.Jayanthan	“National Symposium on Mathematics and Applications (NSMA)”	IIT Madras	22.12.2017
Training: -Nil-				

3.4. Special Lectures delivered by the faculty in other Institutions:

Sl. No.	Name of faculty	Topic of Lecture	Institution	Date
1	Sumesh K	Conference on Functional Analysis at IIT Bombay, 2017	Paper presentation: “Regular representation of completely bounded maps”	12/10/2017 to 15/10/2017
		Refresher course on Real Analysis, at Ramanujan Institute, University of Madras	Gave two lectures on Riemann-Stieltjes Integral	18/11/2017 To 20/11/2017

2	Prof. R.Usha	70 th Annual meeting of the APS meeting of the Division of Fluid Mechanics, Denver, Colorado, USA Nov 19 – 21, 2017	Finite amplitude instability in two-layer viscosity stratified plane Poiseuille flow, R.usha, PriyankaShukla, Geetanjali Chattopadhyay	21/11/2017
3		70 th Annual meeting of the APS meeting of the Division of Fluid Mechanics, Denver, Colorado, USA Nov 19 – 21, 2017	Role of anisotropy and inhomogeneity on the instability due to viscosity stratification of Poiseuille flow in a porous channel, R.usha, Geetanjali, Severine Millet	21/11/2017
4		Miscible two-fluid flow down an incline: stability analysis	<i>Laboratoire de Mécanique des Fluides et d'Acoustique - UMR 5509, University of Lyon, France</i>	20.06.2017
5		Linear stability analysis of viscosity stratified free surface flow	Université Claude Bernard Lyon 1 – Department of Mécanique	06.06.2017
6	Prof. Satyajit Roy	Lecture on “Numerical Solutions of Differential Equations” in short-term refreshers’ course at Pondicherry University,	Pondicherry University, Puducherry	17.07.2017
7	Prof. Arindama Singh	Four lectures on School Mathematics at Teachers workshop	Kerala School of Mathematics, Kozhikode	16/09/2017 to 17/09/2017
8		Four lectures at the Refresher course on Real Analysis for College Teachers	Ramanujan Institute, Univ. of Madras.	07/11/2017 to 08/11/2017
9		Five lectures on Matrix Theory at Pedagogy workshop for College Teachers	Central University of Tamil Nadu, Thiruvarur,	17/12/2017 to 23/12/2017
10		Five lectures on Analysis at Mathematics Workshop for undergrads		
11		One lecture on ‘Bedbugs and a Lonely hermit’	FORAYS, IIT Madras	07/03/2018

3.5. Invited Talks/Paper Presentation at Conferences/Symposia/Workshop

Sl. No.	Name of faculty	Programme	Paper/Talk/Lectures	Date
1	Dr.Dipramit Majumdar	Number Theory and Representation Theory workshop in NUS	Invited Talk “P-adicasai transfer”	18.04.2017

2	Dr. T.E.Venkata Balaji	Research Science Initiative Chennai 2017 at Media Centre, Library, IIT Madras organized by IITM, PSBB Schools Chennai and Shastra University Thanjavur	Invited Lecture (2) "The notion of curvature"	29.04.2017
3		Annual Foundation School-II at Kerala School of Mathematics	Invited Lectures "Differential geometry"	27.05.2017 to 03.06.2017
4		Refresher course in Advanced Analysis, Kerala School of Mathematics, Kozhikode	Mini-course of 8 Lectures "Harmonic Functions on the Plane"	during 09-12 November, 2017
5	Prof. M. Thamban Nair	National Conference on "Mathematical Methods for Engineering Applications" at Mar Baselios College of Engineering, Trivandrum.	Invited Talk on "Heat Equation and Fourier Series"	29.7. 2017
6	Prof. R.Radha	IWM Annual conference, IISc Bangalore	Invited Talk	14.07.2017
7	Dr Shruti Dubey	20 th International Conference of International Academy of Physical Sciences (CONIAPS XX) at University College of Science, Osmania University, Hyderabad, Telangana State, India	Invited Talk	July 15- 16, 2017
8	Prof. M. Thamban Nair	"Talk to a Professor" in Kendriya Vidyalaya, IIT Madras	Gave a talk titled "Concept of limit through Geometry and Physics"	12.8. 2017
9	Sumesh K	Conference on Functional Analysis at IIT Bombay, 2017	Paper presentation: "Regular representation of completely bounded maps"	12/10/2017 to 15/10/2017
10		Refresher course on Real Analysis, At Ramanujan Institute, University of Madras	Gave two lectures on Riemann-Stieltjes Integral	18/11/2017 To 20/11/2017
11	R.Usha	70 th Annual meeting of the APS meeting of the Division of Fluid Mechanics, Denver, Colarado, USA Nov 19 – 21, 2017	Finite amplitude instability in two-layer viscosity stratified plane Poiseuille flow, R.usha, PriyankaShukla, GeetanjaliChattopadhyay	21/11/2017
12		70 th Annual meeting of the APS meeting of the Division of Fluid Mechanics, Denver, Colarado, USA Nov 19 – 21, 2017	Role of anisotropy and inhomogeneity on the instability due to viscosity stratification of Poiseuille flow in a porous channel, R.Usha, Geetanjali, Severine Millet	21/11/2017
13	Prof. Arindama Singh	FORAYS 2018	Talk on 'A Lonely Hermit and Bedbugs' in	07/03/2018
14		AICTE Course on Numerical Linear Algebra at IIT Madras	Talk on ' Linear Transformations'	19/03/2018
15		Invited talk on 'Linear Algebra (Seven Lectures)	Kerala School of Mathematics	24/03/2018 To 26/03/2018
16	Prof. S. Sundar	Invited Talk	Hindustan College, Coimbatore	06/03/2018
17		Invited talk	Lakshmikanthan Institute for Social Studies & Maths	16/03/2018
18		Invited Talk	Hindustan College	23/03/2018
19		Invited Talk	Hyderabad University	26/08/2017
20		Invited talk	Hyderabad University	26/08/2017
21		Invited talk	Hyderabad University	30/08/2017

22		Invited Talk	K.L. University, Vijayawada	17/11/2017
23		Invited Talk	SRM University, Chennai	08/12/2017
24		Invited Talk	VIT Vellore	01/12/2017
25		Invited Talk	KonguEngg. College, Erode	27/10/2017
26		FDP Talk	St. Joseph College, FDP Talk	18/08/2017
27		Invited Talk	PSG Institute	18/09/2017

28	Dr. A.K. B. Chand	Special Lecture	VIT University	14/03/2018
29	Prof. Satyajit Roy	Invited talk "International Seminar on Emerging Trends in Mathematics (ISETM)"	VIT University, Vellore	29/03/2018.
30		Special Lecture in "Faculty Development Program"	VIT University , Vellore	28/03/2018.
31	Dr. Sarang Sane	Invited Talk - The Pfaffian of a matrix and unimodular rows - -	Indian Statistical Institute(ISI), Bengaluru	20/03/2018
32		Invited Talk - Specialization closed subsets, thick subcategories and Cohen-Macaulay rings -	Indian Statistical Institute (ISI), Bengaluru	22/03/2018
33	Prof. K.C. Sivakumar	Invited talk - On Almost Skew-symmetric Matrices	SRM Institute of Science and Technology, Vadapalani	23/02/2018
34	Prof. P. Veeramani	Talk on Basic Concepts on Analysis and Algebra on the occasion of One Day Workshop on Analysis , Algebra and Applications	Vivekanandha College of Arts and Science for Women, Sankari West	03/02/2018
35		Given a Talk on the Occasion of National Science Day	Muthayammal College of Engineering , Rasipuram	17/02/2018
36		Chaired a Session and gave an invited Talk on Applications of Fixed Point Theorems , Best Proximity Point Theorems to Generalized Nash Equilibrium Points on the occasion of International Conference on Mathematical Sciences and Applications	Guru Ghasidas Vishwavidyalaya (Central University) , Bhilasapur	23/02/2018
37		Talk on Applications of LUB Axiom and some results on Uniform convergence on the occasion of National Workshop on Analysis and Algebra	St.Josheph's College , Tiruchirappalli	28/02/2018
38		Talk on Applications of Completeness Axiom	Kanchi Mamunivar Centre for Post Graduate Studies , Pondicherry	15/03/2018
39		P. Subramanian Endowment Lecture ' On Zorn's Lemma and its Applications "	Presidency College	28/03/2018
40		A trick with Koszul complexes and a derived equivalence Cohen-Macaulay rings and derived equivalences	Mathematisches Institut, Ludwig Maximilians Univeritat(LMU), Munchen	31/05/2017
41	Cohen-Macaulay rings and derived equivalences	Harishchandra Research Institute (HRI), Allahabad	01/12/2017	
42	The Pfaffian of a matrix and unimodular rows	Indian Statistical Institute(ISI), Bengaluru	20/03/2018	

43	Dr. Sarang Sane	Specialization closed subsets, thick subcategories and Cohen-Macaulay rings	Indian Statistical Institute (ISI), Bengaluru	22/03/2018
44		Specialization closed subsets, thick subcategories and Cohen-Macaulay rings	Indian Institute of Science (IISc), Bengaluru	23/03/2018
45		Instructional School for Teachers in St. Joseph's College, Irinjalakuda, Kerala.	lectures and tutorials on "Commutative Algebra".	24/04/2017 to 29/04/2017
46		National Conference on Commutative Algebra and Algebraic Geometry (CAAG) in IISER, Pune.	A criterion for local rings to be Cohen-Macaulay based on a derived equivalence	5/12/2017 to 8/12/2017
47		Advanced Foundational School (AFS-1) in Bhaskaracharya Pratishthan, Pune	lectures and 3 tutorials based on Artin's Algebra.	15/12/2017 to 22/12/2017
48	Prof. Y.V.S.S Sanyasiraju	Delivered a lecture on " Shape parameter optimization of the RBF functions for solving the PDE	Discipline of Mathematics, School of Sciences, IIT Indore	5/1/2018
49		Delivered an invited talk on "Flow & heat transfer computations using Higher Order Compact Schemes", on in the National Conference on Fluid Mechanics - 2017	SSN College Chennai.	28/10/2017
50		Delivered an invited talk on "Flow computations using Higher Order Compact Schemes", on in the National Workshop On Mathematical Modeling and Computational Techniques	NIT Karaikal	15/7/2017
51	Prof. R. Radha	Gave an invited talk in IWM conference, on Mathematical sampling theory - some recent developments	Indian Institute of Science, Bangalore.	13/07/2017 to 15/07/2017
52		Gave an invited talk in "National conference on Emerging trends in Mathematics 2017 on Wavelets and applications in signal and image processing	Ethiraj college for Women, Chennai	12/12/2017 to 13/12/2017
53		Gave an invited talk in the 83 rd Annual (International) conference on " Function spaces and inequalities" and titled Frames and bases of system of translates on the Heisenberg group	Indian Mathematical society., Tirupati	12/12/2017 to 15/12/2017
54		Gave an invited talk in 15 th Discussion meeting in Harmonic Analysis (International conference) on Frames and shift invariant spaces on the Heisenberg group	Indian Institute of Science, Bangalore	18/12/2017 to 21/12/2017
55		Gave an invited talk in National conference in Analysis on Yves Meyer and wavelet analysis	Chennai Mathematical Institute	23/12/2017

3.6 Visit to other Institutions

S.No	Name of faculty	Programme	Venue	Date
1	Dr. A. K. B. Chand	Joint Research work	IIT Bhubaneswar	08/05/2017 to 16/05/2017
		Faculty Selection Seminar Evaluation	IIT Tirupati	24/05/2017
2		Shape Preserving Rational Graph Directed Fractal Interpolation at 83rd Annual conference	IMS, Tirupati	12/12/2017 to 15/12/2017
3		Cubic Spline Fractal Solutions to Two-point Boundary Value Problems at International Conference on Nonlinear Differential Equations-Theory, Modeling and Computations (Dec 8-9, 2017)	SRM University, Kattankulathur, Chennai	8/12/2017 to 9/12/2017
4		DC Meeting	VIT Chennai	09/12/2017
5		DC Meeting	SRM University, Kattankulathur, Chennai	18/01/2017
6	Special Lecture	VIT University	14/03/2018	
7	Prof. S. Sundar	Faculty Selection short listing Meeting as a Member	IIT Palakkad	04/04/2017
8		DST-SERB PAC Meeting as a Member	IIT Guwahati	20/04/2017 to 21/04/2017
9		Ph.D viva-voce meeting as a Examiner	NIT Surat	18/05/2017
10		Faculty Selection meeting as a Member of the Selection Committee	IIT Tirupathi	24/05/2017 to 25/05/2017
11		Ph.D Viva Voce Meeting	IIT Bombay	27/06/2007
12		Faculty Selection Committee Meeting	Central University of Tamilnadu, Thiruvarur	01/07/2017
13		DST-SERB PAC Meeting	IISc Bangalore	06/07/2017
14		Ph.D Review Meeting	SASTRA University	22/07/2017
15		Faculty Selection Committee Meeting	NIT, Warangal	14/07/2017
16		BoS Meeting	Nagpur Engineering College, Nagpur	05/08/2017
17		Selection Committee Meeting	Indian Institute of Petroleum Engineering , Vizag held at Kolkata	16/08/2017
18		Ph.D. Viva	NIT Calicut	08/09/2017
19		Guest Speaker	Ethiraj College Maths Fest "Numera"	14/09/2017
20		DC Meeting	SRM University	28/10/2017
21		Attended Ph.D. Viva Voce Examination	NIT Warangal	27/12/2017
22		Compact Course PDE	Vasavi College, Erode	02/09/2017
23		PhD Viva	IISc Bangalore	13/09/2017
24		Ph.D Viva	NIT Jamshedpur	15/09/2017
25				
26		Ph.D. Viva	IIT BHU	22/09/2017
27		Faculty Selection Committee Meeting	IIT Kharagpur	04/10/2017
28		DST-SRB PAC Meeting	IISc Bangalore	13/10/2017 & 14/10/2017
29				
30		DAAD Workshop	Hyderabad	28/10/2017
31		PH.D. Viva	IISc Bangalore	03/11/2017
32		DST-PAC Meeting	IMRL Hyderabad	10/11/2017 & 11/11/2017
33		Recruitment	NIT Calicut	29/11/2017
34				
35		Chief Guest, Maths Conference	Ethiraj College, Chennai	12/12/2017
36				
37	Attended the Ph.D Viva Voce Meeting	IISc Bangalore	26/12/2017	

38		Faculty Development Programme (FDP)	REC, Chennai	26/12/2017
39		Attended the Ph.D Viva Voce Meeting / Invited Talk	IIT Kharagpur	29/12/2017
40		Chief Guest	Velammal Bodhi School, Chennai	06/01/2018
41		Ph.D. Viva	IIT Kharagpur	02/02/2018
42		Ph.D. Viva	Madurai Kamaraj University	23/02/2018
43		DC Meeting	Sastra University	21/03/2018
44		Faculty Selection	NITC	24/03/2018
45		Ph.D. Viva	BHU	28/03/2018
46	Prof. Satyajit Roy	Ph.D. Viva Voce Meeting	SIT Tumkuru, Karnataka	28/06/2017
47		Faculty Selection Committee Meeting	GITAM University, Hyderabad	05/07/2017
48		Ph.D. Viva Voce Meeting	IIT Kharagpur	14/07/2017
49		Special Lectures in FDP	VIT University	27/10/2017 & 28/10/2017
50		Expert Lectures for Students	AIT Razampeta, AP	04/11/2017
51		Ph.D. Viva	IIT Kharagpur	13/11/2017
52		Ph.D. Viva	NIT Calicut	27/11/2017
53		Invited Talk	SRM University, Chennai	08/12/2017
54		Synopsis Meeting	IIST, Trivandrum	15/02/2018
55		Ph.D. Viva conducted —	NIT Trichy	28/02/2018
56		Comprehensive Viva —	NIT Puducherry	03/03/2018
57		DC Meeting - - -	Sri Ramachandra University	21/03/2018
58		Doctoral Committee Meeting	Anna University, Chennai	14/12/2017
59	Ph.D. Viva Voce	NIT Calicut	25/01/2018	
60	Prof. Arindama Singh	Selection Committee Meeting 4. October 30, 2017: IIT ISM-Dhanbad 5. March 8, 2018: IIT Hyderabad	IIT Patna	12/05/2017 to 16/05/2017
61		Selection Committee Meeting	Central Univ of Rajasthan	13/06/2017 to 14/06/2017
62		Selection Committee Meeting	Indian Maritime University	12/10/2017
63		Selection Committee Meeting	IIT ISM Dhanabad	30/10/2017

64	Prof. Thamban Nair	Gave a Pleenary talk A discrete regularization method for Fredholm integral equations of the first kind", at the 2nd International Conference on "Recent Advances in Mathematical Sciences and its Applications"	Jaypee Institute of Information technology, New Delhi	12/12/2017	
65					
66		Gave lectures in ATS on Functional Analysis for Teachers and research Scholars	at IIT Tirupati	14/12/2017 to 15/12/2017	
67		Member, Faculty Selection Committee	IIT Delhi	03/01/2018 to 04/01/2018	
68		Senate meeting	IIT Palakkad	06/04/2017	
69		Board of Studies meeting	Amrita Vishwavidyalaya, Coimbatore	21/04/2017	
70		Chaired Ph.D interview committee	IIT Palakkad	18/05/2017 to 19/05/2017	
71		Subject Expert for Selection Committee	IIT Ropar	11/7/ 2017	
72		Senate Nominee for Selection Committee Meeting for IIT Jammu	IIT Delhi	19/7/ 2017 and 20/07/ 2017	
73		Expert for Academic Audit of Mathematics department of VNIT Nagpur	VNIT Nagpur	22/07/ 2017	
74		Gave a talk on "Concept of limit through examples from physics and geometry" for one and half hour at an INSPIRE Camp	SRM University	09/01/2018	
75		Gave a talk on "Elementary concepts in calculus through examples from physics and geometry" for one and half hour at an INSPIRE Camp	SSN College of Engineering	27/01/2018	
76		As subject expert for faculty selection	Madras University	09/02/2018	
77		As subject expert for faculty selection	NIT Trichy	17/02/2018 to 19/02/2018	
78		To conduct GATE Examination	Srilanka	01/02/2018 to 04/02/2018	
79		Prof. V. Vetrivel	Admission Committee Meeting	KIIT Bhubaneswar	19/02/2018
80					
81			Member, Expert Audit Committee Meeting,	PSG Tech., Coimbatore,	24/02/2018
82			As subject expert for faculty selection	NIT Surathakal	29/02/2018 & 30/02/2018
83	Member, Doctoral Committee, Ph.D. scholar		Dr. M.G.R. Educational and Research Institute, Maduravoya	23/03/2018	
84	Chief Guest, Symposium SIT Scihum – 2018		Sai Ram Institute of Technology, Madras,	09/03/2018	
85	Board of Studies Meeting		Bishop Heber College	09/03/2018	
86	Viva Voce Meeting		Sri Ramachandra University	10/03/2018	
87	Selection Committee Meeting		CIT Coimbatore	24/03/2018	
88	Prof. R. Usha	"29 th Ramanujan Endowment Lecture" on "Dynamics of wavy films" Department of Mathematics, , Chennai	College of Engineering, Anna University	23/02/2018	
89		Attended Science Academies' Lecture Workshop	The Madura College, Madurai	06/03/2018	
90		Attended Ramanujan Day, Chennai,	College of Engineering, Guindy, Anna University,	23/02/2018	

91		Ph. D Viva- voce Department of Mathematics	Bharathiar University, Trichy	12/03/2018
92		Board Of Studies Meeting	Department of Mathematics Meenakshi College For women, Chennai	14/03/2018
93		Board of Studies Meeting,	Department of Mathematics Stella Maris College, Chennai	14/03/2018
94		Special Lecture	Srimad Andavan Arts and Science College, Trichy	12/03/2018
95	Dr. Venkata Balaji	KVPY interview selection committee	Anna University MIT, Chennai,	10/02/2018 to 12/02/2018
96		RSIC interview selection committee	Padma Seshadri Bala Bhavan Senior Secondary School, Nungambakkam	25/02/2018
97		Advanced Training in Mathematics Schools –National Workshop titled Annual Foundation School – II, gave invited lectures on Differential Geometry	Kerala School of Mathematics, Kozhikode	May 08 to June 03
98		Refresher course in Advanced Analysis for College teachers working in Kerala state, gave invited lectures on Harmonic Functions on the Plane	Kerala School of Mathematics, Kozhikode	Nov.09 to Nov.12
99	Sarang Sane	Workshop on K-theory	HIM, Bonn, Germany.	May, 2017
100		Collaboration visit	NTNU, Trondheim, Norway	May, 2017
101		Collaboration visit and talk	LMU, Munich, Germany	May-June,2017
102		Committee meeting	IISER, Tirupati	12/10/2017
103		Collaboration visit and talk	HRI, Allahabad	Nov., 2017
104		Collaboration visit and talk	ISI, Bengaluru	March, 2018
105	Dr. Shruti Dubey	Doctoral Committee Meeting	SRM University, Kattankulathur	25/07/2017
106		Comprehensive viva at Tamilnadu on 25/7/17	SRM University, Kattankulathur,	25/07/2017
107		Invited Talk	SRM University, Chennai	08/12/2017
108		Doctoral Committee Meeting	Anna University, Chennai	14/12/2017
109		Ph.D. Viva Voce	NIT Calicut	25/01/2018
110	Dr. Sivaram Ambikasaran	FEAST Project Collaboration	Vikram Sarabhai Space Centre, Trivandrum	03/11/2017
111		Expert member, PhD Thesis Synopsis meeting, ,	SRM University	22/03/2018
112		Subject expert member, BOS (Board of Studies) for undergraduate courses	SRM Institute of science and Technology	8/3/2018
113		Expert member, Board of studies of the Mathematics, ,	PSG College of Technology, Coimbatore	24/02/2018
114		External Examiner, PhD Viva Voce examination,	, VIT Vellore	20/02/2018
115		DC Committee meeting of three research scholars	SRM INSTITUTE OF SCIENCE AND TECHNOLOGY,	18/01/2018

116	Prof. Y.V.S.S. Sanyasiraju	Expert member, PhD Viva Voce examination, Discipline of Mathematics, School of Sciences,	, IIT Indore	05/01/2018
117		External Examiner, PhD Viva Voce examination, ,,	JNTU Ananthapur	29/12/2017
118		Expert member, Faculty recruitment,	VIT Vellore	01/07/2017
119		Expert member, PhD Viva Voce examination,	, NIT Surat, Surat	28/06/2017
120		. GATE meeting,	at IIT Kharagpur	June 24-25, 2017
121		Attended as Expert member, Board of Studies meeting for revision of PG studies in Mathematics	SRM University	June 13, 2017
122		Attended as Expert member to scrutinize the seminar talks of the candidates of the faculty recruitment (Mathematics department)	IIT Tirupati,	May 24, 2017
123		Expert member, Comprehensive Viva Examination,	SRM University, Chennai	April 29, 2017
124		Expert member, PhD Viva Voce examination	S V University, Tirupati	April 26,2017
125		Expert member, PhD Viva Voce examination	JNTU Ananthapur	April 12, 2017
126		Expert member, Mathematical Modeling Competition	SRM University	April 4, 2017.
127	Dr. Soumen Sarkar	Annual Foundation School -I (2017) - Kozhikode	Kerala School of Mathematics (KSoM)	11.12.2017 to 29.12.2017
128	Prof. R. Radha	Participated as a resource person for the course "Real Analysis "	Ramanujan Institute for Advanced study in Mathematics, Chennai.	7/11/2017 to 27/11/2017

3.7. Visits abroad by faculty:

Sl. No.	Name of faculty	Country visited	Date	Purpose of visit	Funding from
1	Dr. ArijitDey	Mexico	07.05.2017 to 12.05.2017	BIRS-CMO workshop on "Beyond Toric Geometry"	Institute (Partial)
2	Dr. R.Balaji	Germany	24.04.2017 to 28.04.2017	Advance training programme on "Distance Learning and Double Degree in a Modern University – A way of Internationalisation"	--
3	Dr.Dipramit Majumdar	Singapore	17.04.2017 To 24.04.2017	Attending and giving invited talk at workshop on "Number Theory and Representation Theory" at National University of Singapore	NUS and IIT
4	Dr. Kunal Mukherjee	Germany	23.04.2017 to 29.04.2017	RIP Research programme	--
5	Prof. K.C.Sivakumar	USA	18.05.2017 to 31.07.2017	Visiting Professor at UMBC, USA	--
6	Dr. Soumen Sarkar	USA	29.05.2017 to 01.06.2017	Princeton-Rider workshop on "Ployhedral Products"	Institute (Partial)
7		Halifax, Canada	05. 07.2017 to 13.07.2017	Visiting Professor Dorette Pronk, Halifax, Canada. Talk1: Some lovely relations between Combinatorics and Toric Topology Talk2: On integral cohomology of toric orbifolds.	Dalhousie University
8		Vancouver, Canada	15.07.2017 to 22.07.2017	CT 2017: International category Theory Conference, UBC, Canada	Institute (Partial)

9		Sanya, China	04.12.2017 to 09.12.2017	International Open Chinese--Russian Conference. Title of my talk: On integral homology of orbifolds.	Institute (Partial)
10	Prof.S.Sundar	Germany	24.04.2017 to 28.04.2017	Advance training programme on "Distance Learning and Double Degree in a Modern University – A way of Internationalisation"	ERASMUS+
11		Germany	08/01/2018 to 20/01/2018	International Workshop on Mathematical Modeling of Complex Systems - Internationalization and Double Degree	Universitat Koblenz Landau, Germany
12	Prof. V. Vetrivel	Germany	08/01/2018 to 20/01/2018	International Workshop on Mathematical Modeling of Complex Systems - Internationalization and Double Degree	Universitat Koblenz Landau, Germany
13	Prof. R.Usha	France	1/6/2017 to 30/6/2017	Visiting professor at the Department of Mecanique, Université Claude Bernard Lyon 1 – France	Université Claude Bernard Lyon 1 – France
14	Sarang Sane	Germany, Norway	May-June,2017.	Visits to Hausdorff Institute of Mathematics, Bonn, NTNU, Trondheim and LMU, Munich.	Self, IITM, NTNU,LMU

3.8 Honours and Awards obtained by faculty:

Sl. No.	Name of faculty	Name of Award	Awarded by	Date of award
Awards:				
1	Dr. Kalpana Mahalingam	Young Scientist Award	The Academy of Sciences, Chennai	28/03/2018
2		Young Faculty Recognition Award 2017	IIT Madras	05/09/2017
3	Dr. A.K.B. Chand	Open Arm Travel Grant for ICM-2018,	International Mathematical Union	March 2018

3.9. Fellowships of Academies and Professional Societies:--Nil--

3.10 Journal Editorial Boards: Nil

4. Design and Development Activities:--Nil--

4.1. Brief and specific details of Process/Instruments/Equipment/ Software designed and developed:

4.2. New facilities added or major equipment procured: -Nil-

4.3. Patents: --Nil--

4.3.1 Patents filed:--Nil--

4.3.2 Patents awarded:--Nil--

5. Research and Consultancy: Nil

5.2 Industrial Consultancy projects: (on going & new) --Nil--

5.3 RBIC projects: (on going & new)--Nil--

5.4 Retainer Consultancy: (on going & new)--Nil--

5.5 Exchange programme with other Universities including Institutions/Universities under MOU; --Nil--

5.6 Faculty members participation with other institution under MoU:--Nil--

Research Publications of the faculty members & research scholars:

5.7 Books	:	(Total No.)
5.8 (a) Total No. of papers published in Refereed National Journals	:	2.....
5.8.(b) Total No. of papers published in Refereed International Journals:	6.....
5.8.(c) Total No. of papers presentation in National Conferences		
(i) In proceedings as full paper	:	
(ii) As abstract	:	
5.8 (d) Total No. of papers presentation in International conferences		
(i) In proceedings as full paper	:	
(ii) As abstract	:	

Note: Only books / papers which are published between 1.4.2017 and 31.03.2018 are to be given. Complete details to be furnished in file accompanying excel sheet.

a. In Refereed International Journals: Excel sheet

b. In Proceedings of International Conferences: Excel sheet

6 Distinguished Visitors to the Department:

Sl.No	Name of the visitor and Designation	Date of visit	Purpose of visit
1	Dr. D. Venku Naidu Assistant Professor IIT Hyderabad	15.07.2017 to 19.07.2017	Research collaboration with Dr. R. Radha
2	Dr. S. Sivanathan Assistant Professor IIT Delhi	23/05/2017 to 02/06/2017	
3	45 Students from Bishop Heber College (Autonomous), Dept. of Mathematics, Trichirapalli	18/09/2017	Lecture cum interactive session at Madhava Hall for students organized by Prof. M. Thamban Nair & Prof. P. Veeramani
4	Mr. Supreeya Bhandari, Royal Bank of Scotland (RBS)	25/09/2017	Opportunities in Financial Mathematics for possible training and placement.
5	Dr. Asok K. Nanda Department of Mathematics and Statistics (IISER Kolkata)	27/09/2017	Special Seminar Talk on "Glance through Reliability"
6	A delegation, consisting of 12 members, includes the President of the UCA, Prof. Jean-Marc Gambaudo and other Program Directors of the research and excellence programs	18/01/2018	The delegation met the faculty members to discuss potential synergies along the lines of the "EUR" projects, Ecoles Universitaires de Recherche programs which covers all the fields of expertise that UCA offers
7	Prof. Peter Massopust, Technical University Munich, Germany	14/08/2017 to 31/08/2017	GIAN course and Joint Research work with Dr. A.K.B. Chand
8	Prof. David Levin, Tel-Aviv University, Israel,	03/11/2017 to 11/11/2017	GIAN course and Joint Research work with Dr.A.K.B. Chand

7. Other Activities of the Department/Centre:

Seminar talks

Sl. No.	Name of the Faculty	Title	Date
1	Prof. B.V.Limaye IIT Bomabay	"Condition numbers of matrices and bases"	03.04.2017
2	Dr. S.Viswanath IMSc, Chennai	"Chromatic polynomials of graphs and words in commutation monoids"	04.04.2017
3	Dr. SenthilBabu D. French Institute of Pondicherry (IFP)	"Mathematics of the practitioners in early modern south India"	06.04.2017
4	Dr. AnusuyaGhosh Post-doctoral fellow, IIM Bengaluru	"Compactly SDR set and sufficient conditions for semidefinite representation"	13.04.2017
5	Prof. Roy Joshu Ohio State University Columbus, Ohio, USA	"Cohomology of group actions"	19.04.2017
6	Prof. R.Radha IIT Madaras	"Yves Meyer and wavelets"	20.04.2017
7	Dr. Sudhanshu Shekhar IIT Kanpur	"Residual Galois representations and parity of ranks of elliptic curves"	17.05.2017
8	Prof. Basudeb Datta IISc Bangalore	"Semi-equivelar maps on the tours are archimedean"	18.05.2017
9	Dr. Kashyap Rajeev sarathy Department of Mathematics IISER Bhopal	Geometric Realizations of Cyclic actions on surfaces	31/07/2017
10	Prof. Krishnaiyan Thulasiraman, Hitachi Chair Emeritus in Computer Science, University of Oklahoma, USA	Resistance Distance, Kirchoff Index /Network Criticality and Foster's Theorems: Generalization and Unification	03/08/2017
11	Prof. S. Kesavan, Adjunct Professor, Department of Mathematics, IIT Madras	From Poincare to Saint Venant - via Donati, Lions and Korn	10/08/2017
12	Dr. PanchatcharamMariappan, NUMA Engineering Services Ltd, Dundalk, Ireland	Fast Finite Element Bioheat Solver for Cancer Treatment Lesion Predictions	17/08/2017
13	Prof. Arindama Singh, Department of Mathematics, IIT Madras	<i>A curious ball game</i>	24/08/2017
14	Prof. Peter Massopust, Centre of Mathematics, Technical University Munich, Germany	Fractional Cone and Hex Splines	31/08/2017

15	(Retd.) Prof. Peeyush Chandra, Department of Mathematics and Statistics, IIT Kanpur	Lecture Series on "Mathematical Population Dynamics and Mathematical Epidemics"	04/09/2017 to 08/09/2017
16	Dr. Shibasish Dasgupta, Lead Statistician, Global Data Insight & Analytics, Ford Motor Private Limited	Variable Selection Using Kullback-Leibler Divergence Loss	14/09/2017
17	Prof. R.K. Amit, Department of Management Studies, IIT Madras	Getting Together When Others Get Together" - Some Results in Cooperative Games with Externalities	21/09/2017
18	Prof. K. N. Raghavan, Institute of Mathematical Sciences, Chennai	Tableaux, Paths and Character Formulas	28/09/2017
19	Dr. Usha Mohan Department of Management Studies IIT Madras	Formulations of the Travelling Salesman Problem and Linear Programming Relaxations	05/10/2017
20	Dr. Sriram Balasubramanian Department of Mathematics, IIT Madras	Compact Sets in the Free Topology	06/10/2017
21	Dr. Sunder Ram Krishnan Post Doctoral Fellow Department of Electrical Engineering Technion-Israel Institute of Technology, Israel	Convergence of the Reach for a Sequence of Random Manifolds	12/10/2017
22	Dr. P. Veeramani Department of Mathematics, IIT Madras	Nondiametral Points and Zorn's Lemma	19/10/2017
23	Prof. G. Srinivasan, [Department of Management Studies, IIT Madras]	<i>On a few interesting O.R. Applications</i>	26/10/2017
24	Dr. Shanker Raman Senior Project Adviser, RISE Lab, Department of Computer Science and Engg., IIT Madras	Mathematical models for a Computer Network protocols and security – a need for a new perspective	02/11/2017
25	Prof. M. Seetharama Gowda Department of Mathematics and Statistics, University of Maryland, USA	Weakly homogeneous variational inequalities	21/11/2017
26		The Eigenvalue map and spectral sets / cones / functions	22/11/2017
27	Dr. Gopalan Nair The University of Western Australia Perth, Australia	Ballot Theorem Generalisations and Combinational Analysis of M/M/1 Queues	04/12/2017
28	Dr. Kamalakshya Mahatab Department of Mathematical Sciences Norwegian University of Science and Technology (NTNU) Trondheim Norway	Extreme Values of the Riemann Zeta Function on the 1- line	07/12/2017

29	Prof. Ratnasingham Shivaji W.L. Giles Distinguished Professor Emeritus of Mathematics (Mississippi State University), The University of North Carolina at Greensboro, USA	Uniqueness Results for Semipositone Problems	12/12/2017
30	Dr. Sudarshan Tiwari AG Technomathematik, TU Kaiserslautern Germany	Modeling and Simulations of Interacting Particle Systems	01/01/2018
31	Dr. Laurence Grammont University of Lyon Institut Camille Jordan (ICJ) St-Etienne , France	Correspondence between Bayesian Estimation and Optimal Constrained Interpolation	17/01/2018
32	Prof. M. Manickam Director of Kerala School of Mathematics	Om Hecke Theory	18/01/2018
33	Prof. H.G. Feichtinger Faculty of Mathematics University of Vienna, Austria	The Kernel Theorem for the Banach Gelfand Triple (S_0, L_2, S) and Applications"	23/01/2018
34	Professor. K. Srinivas Reddy (Department of Mechanical Engineering, IIT Madras)	<i>Optimization of Energy Systems for Sustainable Development</i>	25/01/2018
35	Prof. B.S.V. Prasad Patnaik (Department of Applied Mechanics, IIT Madras)	<i>Introduction to Turbulent flows and their prediction : A tribute to Prof Tulaji</i>	01/02/2018
36	Dr. Satyajit Pramanik (Post- doctoral Fellow, Nordita, Royal Institute of Technology and Stockholm University, Stockholm, Sweden)	<i>Confinement and nonlocal elasticity effects in premelting dynamics</i>	08/02/2018
37	Prof. S. Kesavan Dept. of Mathematics, IIT Madras	Lecture Series on Topics in Advanced PDE	13/02/2018
38	Prof. J. K. Verma (Department of Mathematics, IIT Mumbai)	<i>Counting Roots of Polynomials Using Newton Polytopes</i>	15-02-2018
39	Prof. Alexander Oron David T. Seigel Chair in Fluid Mechanics, Dept of Mech. Engg. Technion-Israel Institute of Technology, Haifa 32000, Israel	<i>Lecture Series on Long Wave Theory of Thin Liquid Films</i>	15/02/2018 to 14/03/2018
40	Dr. T.E. Venkata Balaji (Department of Mathematics, IIT Madras)	<i>Some Beautiful Butterflies in Mathematics</i>	22/02/2018
41	Dr. Shiv Prakash Patel ISI Bangalore	<i>Restriction of representations of metaplectic $Sp(2n, \mathbb{R})$</i>	22/02/2018
42	DR. Sabyasachi Mukhopadhyay University of Hohenheim, Germany	<i>Modelling Spatio-temporal Variation in rainfall using a hierarchical Bayesian regression model</i>	26/02/2018

43	Dr. A. V. Jayanthan (Department of Mathematics, IIT Madras)	<i>Edge ideals - A bridge between combinatorics and commutative algebra</i>	01/03/2018
44	Dr. Arnab Saha Australian National University	<i>Isocrystals associated to arithmetic jet spaces of abelian schemes</i>	01/03/2018
45	Dr. K. Sumesh (Department of Mathematics, IIT Madras)	<i>Completely positive maps - An introduction</i>	08/03/2018
46	Prof. N.S. Narayanaswamy (Department of Computer Science and Engineering, IIT Madras)	<i>An Exposition of Property B of uniform Hypergraphs</i>	15/03/2018
47	Dr. Sounaka Mishra (Department of Mathematics, IIT Madras)	<i>Greedy Algorithm for Maximum Independent set and its generalization</i>	22/03/2018

Results obtained in research work (from M.S. &Ph.D thesis) of the scholar/faculty (last year sample enclosed from Director's Speech)

Inter disciplinary group achievements of the Departments.

Socially relevant activities carried out by the Department

International collaboration achievements by the Department

1. Faculty visit

2. Student visit

3. Activities initiated

Major infrastructure development made in the Department