



Dr. M A Srinivas

M.Sc(Applied Mathematics) Ph.D (Applied Mathematics) M.Tech(Computer science Engineering)

Professor

Life member of ISTE

Mathematics

Areas of Interest:

- **Differential Equations,**
- Mathematical modelling,
- **Boundary value problems.**

Prof.Srinivas has very vast experience in teaching Engineering Mathematics. He strongly believes that teaching Mathematics to engineering students is a challenging job because of mainly two reasons.

(i) one need to convince the students in explaining the mathematical concepts without using much regourous mathematical theories and formulae.

(ii) one should explain the concepts by making a student to visualize those concepts.

Prof. Srinivas prepared certain animations and visuals to explain clearly the concepts .

Prof Srinivas is a good researcher. He published research papers of god quality and has publications in reputed National and International Journals.

He was a resource person for many workshops , Faculty development programs . He delivered key note addresses/Invited talks at conferences and chaired the sessions.

-> Educational & Professional

->Academic Qualifications

- > M.Tech in COMPUTER SCIENCE, ANDHRA UNIVERSITY with I CLASS (2008-2010)

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Ph.D in CONTRIBUTIONS TO CERTAIN NON LINEAR BIO MATHEMATICAL MODELS., ANDHRA UNIVERSITY (1986-1990)

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M.Sc in APPLIED MATHEMATICS, ANDHRA UNIVERSITY with I CLASS (1983-1985)

-> B.Sc in MATHEMATICS, PHYSICS, STATISTICS, ANDHRA UNIVERSITY with I Class (1980-1983)

-> Professional Experience

-> Teaching Experience

-> PROFESSOR, SIR C R R COLLEGE OF ENGINEERING/ANDHRA UNIVERSITY (2006 - 2010)

-> ASSOCIATE PROFESSOR, SIR C R R COLLEGE OF ENGINEERING/ANDHRA UNIVERSITY (2001 - 2006)

-> LECTURER, SIR C R R COLLEGE OF ENGINEERING/ANDHRA UNIVERSITY (1990 - 2001)

-> At JNTUH

-> CHAIRPERSON, BOARD OF STUDIES, J N T UNIVERSITY Hyderabad (2014 - Till Date)

-> CHAIRPERSON, BOARD OF STUDIES, J N T U H COLLEGE OF ENGINEERING (2011 - Till Date)

-> HEAD, J N T U H C E H / J N T U HYDERABAD (2011 - Till Date)

-> PROFESSOR, J N T U H C E H / J N T U HYDERABAD (2010 - Till Date)

-> Research

-> Research Projects

-> *Dynamics of certain non linear systems in epidemiology*, funded by TEQIP III - CRS - 2,00,000/- (sanctioned in 2019 duration of 1 years)

-> *Perstaltic transport of nano fluids*, funded by TEQIP III - CRS - 2,00,000 (sanctioned in 2019 duration of 1 years)

-> *Computational fluid dynamics studies of blood flow in human coronary artery of diabetic patient*, funded by TEQIP III - CRS - 14,43,000/- (sanctioned in 2019 duration of 1 years)

-> *STOCHASTIC/DELAYEDNON-LINEAR MATHEMATICAL MODELLING OF CERTAIN BIOLOGICAL SYSTEMS*, funded by UNIVERSITY GRANTS COMMISSION - 10,40,800/- (2013 - 2017)

->Books

-> Prof. M. A. Srinivas, *.Sc 1st year Semester- II - Statistics Laboratory Manual and Record*, Dr. B. R. Ambedkar open University, Hyderabad, 2019

-> Prof. M. A. Srinivas, *B.Sc 1st year Semester- II - Statistics*, Dr. B. R. Ambedkar open University, Hyderabad, 2019

-> Prof. M. A. Srinivas, *B.Sc " 3rd Year V Sem - Mathematics " Integral Calculus*, Telugu Academy Hyderabad, 2018

-> Prof. M. A. Srinivas, *B.Sc " 3rd Year VI Sem - Mathematics " Vector Calculus*, Telugu Academy Hyderabad, 2018

-> Publications

- **International Journals**

- > Prof. M. A. Srinivas, *Mathematical study of Plant-Herbivore- Carnivore system with Holling Type-II functional Responses.*, Journal of adv Research in Dynamical & Control systems, Vol No.11, Issue No.4, pp.2517-2536, 2019
- > *THERMAL EFFEETS OF TWO FLUIDS IN A CIRCULAR TUBE WITH NANO PARTICLES*, JOURNAL OF NANO FLUIDS, Vol No.6, Issue No.1-105, 119, 2017
- > *DYNAMICS OF PREY PREDATOR WITH HOLING INTERACTIONS AND STOCHASTIC INFLUENCES*, ALEXANDRIA ENGINEERING JOURNAL, 2017
- > *A DETAILED ANALYSIS OF THE FITZHUGH NAGUMO EQUATIONS WITH PERIODIC EXTERNAL STIMULUS*, INTERNATIONAL JOURNAL OF APPLIED MATHEMATICS AND APPLICATIONS, Vol No.9, Issue No.1, pp.107-118, 2017
- > *QUALITATIVE STUDY OF A GENERA TYP ELISED BRUSSELATOR TYPE EQUATION*, ITALIAN JOURNAL OF PURE AND APPLIED MATHEMATICS, ISBN No.ISSN 2239-0227, Vol No.38, Issue No.145, pp.145-157, FORUM OF EDITORS UNIVERSITY OF UDINE, JULY, 2017
- > M A S SRINIVAS, A PRASANTHI, B S MURTHY, *A THREE SPECIES PREY-PREDATOR HOLLING TYPE-II NON AUTONOMOUS DISCRETE MODEL*, INDIAN JOURNAL OF SCIENCE AND TECHNOLOGY, ISBN No.0126-6705, Vol No.10, Issue No.22, pp.1-14, 2017
- > *STUDY OF SOLUTIONS OF COMMENSALISM MODELS BY HOMOTOPY- PERTURBATION METHOD(HPM)*, INTERNATIONAL JOURNAL OF MATHEMATICAL AND COMPUTATIONAL METHODS, Vol No.1, Issue No.1, pp.11-24, 2016
- > *EFFECT OF WHITE NOISE AND DIFFUSION ON THE DYNAMICS OF PREDATOR- PREY DENSITY DEPENDENT MODEL*, RESEARCH JOURNAL OF PHARMACY AND TECHNOLOGY, Vol No.9, Issue No.11, pp.1451-1460, 2016
- > *EFFECT OF DELAY IN PREDATION OF A TWO SPECIES ALLELOPATHIC SYSTEM HAVING IMPRECISE GROWTH RATES*, JOURNAL OF ADVANCED MATHEMATICS AND APPLICATIONS, ISBN No.2156-7565, Vol No.COMMUNICATED, AMERICAN SCIENTIFIC , 2016
- > B S N MURTHY, M A SRINIVAS, *DYNAMICS OF WATER HYACINTH IN A FISHERY SYSTEM WITH DELAY EFFECT*, BRITISH JOURNAL OF MATHEMATICS AND COMPUTER SCIENCE, ISBN No.2231-0851, Vol No.18, Issue No.2, pp.1-13, SCIENCE DOMAIN , AUGUST, 2016
- > *STUDY OF PERISTALTIC MOTION OF NANO PARTICLES OF MICRO POLAR FLUID WITH HEAT AND MASS TRANSFER EFFECT IN AN INCLINED TUBE*, PROCEDIA ENGINEERING INTERNATIONAL CONFERENCE ON COMPUTATIONAL HEAT AND MASS TRANSFER , Vol No.127, Issue No.-, pp.694-702, 2015
- > *EXISTENCE OF POSITIVE SOLUTIONS FOR SYSTEMS OF SECOND ORDER MULTI-POINT BOUNDARY VALUE PROBLEMS ON TIME SCALES*, PROCEEDINGS OF INDIAN ACADAMY OF MATHEMATICAL SCIENCES, ISBN No.0253-4142, Vol No.125, Issue No.3, pp.353-370, SPRINGER, AUGUST, 2015
- > *PERISTALTIC TRANSPORT OF A NANOFLUID IN AN INCLINED TUBE*, AMERICAN JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, ISBN No.2165-8935, Vol No.5, Issue No.4, pp.117-128, SCIENTIFIC AND ACADEMIC PUBLISHERS, jUNE, 2015
- > *ANALYSIS OF A PREY-PREDATOR HARVESTING TIME DELAY MODEL WITH INTERVAL BIOLOGICAL PARAMETERS*, INTERNATIONAL JOURNAL OF MATHEMATICAL MODELING AND NUMERICAL OPTIMIZATION, ISBN No.2040-3615, Vol No.6, Issue No.2, pp.114-140, INDERSCIENCE PUBLICATIONS, MAY, 2015
- > *EIGEN VALUE INTERVALS FOR ITERATIVE SYSTEMS OF NONLINEAR THREE POINT BOUNDARY VALUE PROBLEMS ON TIME SCALES*, NONLINEAR STUDIES, ISBN No.1359-8678, Vol No.22, Issue No.3, pp.419-431, CSP-CAMBRIDGE, UK, SEPTEMBER, 2015
- > *AN OPTIMAL HARVESTING STRATAGY OF A THREE SPECIES SYN-ECOSYSTEM WITH COMMENSALISM AND STOCHASTICITY*, APPLICATIONS AND APPLIED MATHEMATICS: AN INTERNATIONAL JOURNAL, ISBN No.1932-9466, Vol No.9, Issue No.1, pp.672-695, A&M UNIVERSITY, DECEMBER, 2014
- > *DYNAMICS OF ALLELOPATHIC TWO SPECIES MODEL HAVING DELAY IN PREDATION*, IOSR JOURNAL OF MATHEMATICS, ISBN No.2278-5728, Vol No.10, Issue No.5, pp.39-45, INTERNATIONAL ORGANIZATION OF SCIENTIFIC RESEAERCH, SEPT-OCT, 2014
- > *ANALYSIS OF A FISHERY MODEL WITH STAGE STRUCTURE OF PREDATOR AND HARVESTING OF PREY*, INTERNATIONAL JOURNAL OF MATHEMATICAL ARCHIEVE, ISBN No.2229-5046, Vol No.4, Issue No.7, pp.158-167, JULY, 2013
- > *A MATHEMATICAL MODEL OF BIO-ECONIC HARVESTING OF PREY-PREDATOR SYSTEM WITH HOST*, INTERNATIONAL JOURNAL OFADVANCES IN SCIENCE AND TECHNOLOGY , ISBN No.2348-5426, Vol No.4, Issue No.6, pp.69-77, SJIF PUBLISHERS, 2012
- > *CHAOTIC DYNAMICS OF THREE SPECIES PREY-PREDATOR COMPETITION MODEL WITH BIONOMIC HARVESTING DUE TO DELAYED ENVIRONMENTAL NOISE AS EXTERNAL DRIVING FORCE*, COMPETUES RENDUS BIOLOGIES, ISBN No.1631-0691, Vol No.335, Issue No.1, pp.503-513, ELSEVIER, AUGUST, 2012
- > *PREY PREDATOR FISHERY MODEL WITH STAGE STRUCTURE IN TWO PATCHY MARINE AQUATIC ENVIRONMENT*, APPLIED MATHEMATICS , ISBN No.2152-7393, Vol No.2, Issue No.1, pp.1405-1416, SCIENTIFIC RESEARCH, NOVEMBER, 2011
- > *A PREY PREDATOR MODEL FOR FISHERY RESOURCE*, INTERNATIONAL JOURNAL OF MATHEMATICAL SCIENCES AND ENGINEERING APPLICATIONS, ISBN No.0973-9424, Vol No.2, Issue No.3, pp.173-189, ASCENT PUBLISHERS, JUNE, 2008
- > *CONVERGENCE OF SOLUTIONS BY QUAZILINEARIZATION MEYHOD FOR THREE POINT BOUNDARY VALUE PROBLEMS*, JOURNAL OF MATHEMATICAL AND PHYSICAL SCIENCES, ISBN No.0047-2557, Vol No.27, Issue No.2, pp.149-157, I I T MADRAS, NOVEMBER, 1993
- > *CONVERGENCE OF ECOLOGICAL COMPETETION BETWEEN TWO SPECIES*, JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, ISBN No.0022-247X, Vol No.158, Issue No.2, pp.333-341, ELSEVIER, 1991
- > *APPROXIMATE ANALYTICAL SOLUTIONS TO THREE SPECIES ECOLOGICAL SYSTEM*, JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, Vol No.145, Issue No.1, pp.89-99, 1990
- > *UPPER AND LOWER BOUNDS FOR GENERAL MATRIX RICCATI DIFFERENTIAL EQUATION*, JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, Vol No.147, Issue No.1, pp.12-21, 1990
- > *ON THE USE OF QUAZILINEARIZATION METHOD IN THE GROWTH OF A PATHOGENIC BACTERIA*, JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, Vol No.149, Issue No.2, pp.576-582, 1990
- > *A NOTE ON BOUNDARY VALUE PROBLEMS*, NEPAL MATHEMATICAL SOCIETY, Vol No.14, Issue No.1, pp.41-48, 1989
- > *ASYMPTOTIC BEHAVIOUR OF SOLUTIONS OF MATRIX INTEGRO DIFFERENTIAL EQUATIONS*, TAMKANAG JOURNAL OF MATHEMATICS, REPUBLIC OF CHINA, Vol No.19, Issue No.1, pp.29-36, TAMKANG UNIVERSITY, 1988

-> Events Participated/Organized

- Organized

- > Organized a Workshop on Innovative Pedagogy for teaching and learning Engineering Mathematics, J N T U Hyderabad, 29-06-2016 to 30-06-2016
- > Organized a Workshop on "Mathematics-Conceptual learning" sponsored by T S C O S T and DST, J N T U Hyderabad, 04-11-2015
- > Organized a Workshop on Use of Technologies for teaching and learning Engineering Mathematics, J N T U Hyderabad, 24-07-2015 to 25-07-2015
- > Organized a Conference on Mathematical sciences(ICMS-2015), Sri Venkateswara University,Tirupathi, 13-07-2015 to 15-07-2015
- > Organized a Workshop on Fascinating Applications of Mathematics in Engineering, Kamala Institute of Technology and science, Huzurabad, 07-03-2014 to 08-03-2014
- > Organized a Workshop on Mathematical Modeling and its applications for Engineers and scientists, J N T U Hyderabad, 30-08-2013
- > Organized a Workshop on FUSION, a day National workshop on soft skills conducted by TCS,HP, C R R Engineering College, Eluru, 15-11-2007 to 17-11-2007
- > Organized a Training on Technical Teachers Training program, NITTTT&R,Chennai, 03-05-2006 to 20-05-2006

- Presented

- > Presented a paper in *International conference on advances in scientific computing*, I I T madras,Chennai, 28-11-2016 to 30-11-2016
- > Presented a paper in *A.P Science Congress*, Sri Venkateswara University,Tirupathi, 27-01-2016 to 29-01-2016
- > Presented a paper in *computational Heat and Mass transfer*, NIT Warangal, 04-07-2015 to 05-07-2015
- > Presented a paper in *Emerging trends in applied Mathematics (NSETAM)*, Andhra University,Visakhapatnam, 04-04-2014 to 05-04-2014
- > Presented a paper in *Applications of Mathematics in Engineering,Physical and life sciences*, Sri Venkateswara University,Tirupathi, 10-12-2012 to 12-12-2012
- > Presented a paper in *Applications of Mathematics in Engineering sciences*, Andhra University,Visakhapatnam, 29-06-2011 to 30-06-2011
- > Presented a paper in *International congress of Mathematicians(ICM-2010)*, U O H ,Hyderabad, 19-08-2010 to 27-08-2010
- > Presented a paper in "Recent trends in Mathematics and Applications in Engineering", K L College of Engineering, Vijayawada, 19-09-2005
- > Presented a paper in *Higher education in Private Sector: problems and challenges in Teaching*, MVR college, Visakhapatnam, 24-07-2004 to 25-07-2004
- > Presented a paper in *International Symposium on Non-linear Analysis and Application to Bio Mathematics*, Andhra University,Visakhapatnam, 11-08-1997 to 15-08-1997
- > Presented a paper in *seminar on Advances in Mathematics*, V R Siddhartha Engineering college,Vijayawada, 09-11-1995 to 10-11-1995
- > Presented a paper in *77th session of Indian Science Congress*, Cochin University, 04-02-1990 to 09-02-1990
- > Presented a paper in *Third annual conference of the Ramanujan Mathematical society*, Manipal Institute of Technology, 27-05-1988 to 29-05-1988
- > Presented a paper in *at International symposium on Non-linear analysis and Applications to Bio-Mathematics*, Andhra University,Visakhapatnam, 24-08-1987 to 28-08-1987

- Participated

- > Participated in a Refresher Course on *Maple soft product Overview-Level-1 with Maple soft and Binary Semantics*, J N T U Hyderabad, 24-06-2017 to 28-06-2017
- > Participated in a Orientation Course on *Stress& time Management for Managerial Effectiveness*, Jaipur Productivity Centre , Ooty, 19-09-2016 to 23-09-2016
- > Participated in a Workshop on *Outcome based Education and accreditation*, NBA Nodal Centre, JNTUH, 14-09-2015
- > Participated in a Workshop on *OUTCOME BASED ACCREDITATION*, NBA Nodal Centre, JNTUH, 15-02-2014 to 17-02-2014
- > Participated in a Workshop on *OUTCOME BASED ACCREDITATION phase-I(WEBINAR)*, NBA nodal centre,JNTUH, 03-02-2014
- > Participated in a Workshop on *Protection of Environment/Mitigation& adaptation of Climatic change*, A P Pollution Control Board, Regional office, Eluru, 17-12-2009
- > Participated in a FDP on *Aptitude*, IEG-JKC& Globarena Technologies , Hyderabad, 10-12-2007
- > Participated in a Conference on *Relational Algebra, Calculus& Applications in DBMS*, Peoples Education Society, Bangalore, 22-11-2007 to 23-11-2007
- > Participated in a Symposium on *International symposium on Harmonic analysis, Wavelets and Partial differential equations*, I I T madras, Chennai, 08-01-2007
- > Participated in a Refresher Course on *Harmonic analysis and Partial differential equations*, I I T madras,Chennai, 01-01-2007 to 12-01-2007
- > Participated in a Workshop on *Instructional design and delivery*, N I T T T & R, Chennai, 12-06-2006 to 17-06-2006
- > Participated in a FDP on *APITCO*, Vijayawada, 04-03-2006 to 16-03-2006
- > Participated in a Refresher Course on *Mathematical for Industry with a special focus on Nano Technology*, IIT Kharagpur, 24-11-2005 to 11-12-2005
- > Participated in a Symposium on *International Symposium on Non-linear Analysis and Application*, Andhra University ,Visakhapatnam, 09-11-1993 to 10-11-1993
- > Participated in a FDP on *Computer methods in Optimization*, I I Sc , Bangalore, 12-10-1992 to 01-01-1970
- > Participated in a Refresher Course on *Computer Methods in Optimization*, I I.Sc, Bangalore, 12-10-1992 to 23-10-1992
- > Participated in a FDP on *Mathematical Ecology*, CTP ,TRIESTE, ITALY, 29-10-1990 to 16-11-1990
- > Participated in a Refresher Course on *Mathematical Ecology*, I.C.T.P, Trieste, Italy, 29-10-1990 to 16-11-1990
- > Participated in a Conference on *THIRD ANNUAL CONFERENCE OF RAMANUJAN MATHEMATICAL SOCIETY*, MANIPAL INSTITUTE OF TECHNOLOGY, 27-05-1988 to 29-05-1988

-> **Honors & Professional Activities**

-> **Professional Activities**

- > Member of the College Academic Council of JNTUH College of Engineering, Hyderabad
- > Member of the Academic council of Silver jubilee Government College(Autonomous), Kurnool
- > Member of the selection committee for Teaching faculty at Telagana Social welfare residential educational institutions society
- > Member of the RUSA appraisal committee for **Mathematical Sciences and Medical Sciences** for JNTU Hyderabad
- > Member of the books selection committee for Zilla Grandhalaya Samsta (selecting books for libraries in W.G.Dt)

-> **Teaching**

- > Differential Equations in M.Sc (Applied Mathematics) III Sem (2016-17)
- > Mathematical Systems theory in M.Sc II sem (2010-11)
- > Theory of computation in M.Sc (APPIED MATHEMATICS) Iv semester (2014 To til)
- > All courses of Engineering Mathematics like differential equations, integral transforms, Vector analysis, Complex analysis, Probability and statistics, Operations Research (optimization Techniques), Fourier series etc to B.Tech students of all branches in B.Tech;M.B.A.;M C A; all semesters (1990-till d)
- > Discrete time control systems in M.Sc (Applied mathematics) III Semester (2013-14)

-> **Administrative Positions Held**

- > Examination in charge, Sir C R Reddy college of engineering, 06 Sep 1990 - 22 Jul 2010
- > Chairperson , Board of studies, JNTU Hyderabad, 14 Dec 2014 - 06 Jan 2018
- > WARDEN,GIRLS HOSTEL, SIR C R R COLLEGE OF ENGINEERING, 14 Feb 2007 - 22 Jul 2010
- > HEAD OF THE DEPARTMENT, J N T U H COLLEGE OFENGINEERING ,HYDERABAD, 11 May 2011 - Present
- > Chairman , Board of studies, J N T U H college of engineering, 11 May 2011 - Present
- > HEAD OF THE DEPARTMENT, SIR C R R COLLEGE OF ENGINEERING, 01 Apr 2001 - 22 Jul 2010

-> **Project/Research Guidance**

- **Students**

Student Name	Title	Year	Download
B S N MURTHY	STUDY OF THE DYNAMICAL BEHAVIOUR OF CERTAIN NONLINEAR BIO MATHEMATICAL MODELS	2018	
N SUBHADRA	STUDY OF PERISTALTIC TRANSPORT OF NANOFLUIDS	2018	
Phulsagar Savata Shamrao	Bifurcations,Limitcycles,Oscillations and Chaos in some Nonlinear Phenomena	2018	
S.KARUNAKAR REDDY	Computational study on an assortment of heat and Mass transfer problems	2014	
M N SRINIVAS	Study of Bionomic equilibrium and Optimal Harvesting policy of certain Fishery Mathematical Models	2012	
G .PURNIMA	Applications of Differential equations to Biological problems	2011	
Vasumathi	Mathematical Modelling	0	
Sailaja	Mathematical Modelling	0	
Phani Rama Krishna	Stochastic Modeling	0	
A.Prasanthi	Delay differential equations	0	
S.Hari prasad	Study of Chaos in some Nonlinear problems	0	
Student Name	Title	Year	Download
U V MANOJ KUMAR	Study of some Non linear bio Mathematical models	2009	

-> **Countries/Foreign Universities**

- > INTERNATIONAL CENTER FOR THEORETICAL PHYSICS, TRIESTE, ITALY , 07-05-1990 to 29-11-1991 Postdoctoral research

-> **Others**

Modern Teaching Methods Adopted:

Besides conventional teaching Methods, students are encouraged to prepare animations related to the mathematical concepts. I made some animations on the topics like Fourier transforms, Applications of integrations, Eigen values and Eigen vectors basic concepts on calculus etc.

I delivered a lecture on multiple integrals and it is web casted to some affiliated colleges of JNTU Hyderabad. The same is uploaded in YouTube also. See the link https://youtu.be/QwLF_UiwINO for a lecture on multiple integrals.

Dr. M A Srinivas
Mathematics

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