

## MATHEMATICS Research group

### **Objectives:**

To promote the quality research in the field of Applied Mathematics.

### **APPLIED MATHEMATICS**

#### **Group members**

<b>S.No</b>	<b>Name</b>	<b>Role in research group</b>
<b>1.</b>	<b>Dr. A. Rami Reddy</b>	<b>Coordinator</b>
<b>2.</b>	<b>K.Bhanu Lakshmi</b>	Member
<b>3.</b>	<b>T.Radha Rani</b>	Member
<b>4.</b>	<b>Ch.Padma</b>	Member
<b>5.</b>	<b>M.Rami Reddy</b>	Member
<b>6.</b>	<b>K.N.V.Lakshmi</b>	Member
<b>7.</b>	<b>G.Vijaya Lakshmi</b>	Member

#### **1) Dr. A. Rami Reddy**

##### **➤ Research Publications:**

1. A. Rami Reddy and S. Srinivas, “Peristaltic Transport of a Non-Newtonian Fluid with Heat Transfer”, Applied Science Periodical, Volume IV, Nov. 2002.
2. A. Rami Reddy, T. K. V. Iyengar and S. Srinivas, “Peristaltic Transport of a Visco Elastic Fluid with Heat Transfer”, Far East Journal of Applied Mathematics, 2002,8(3), Pp. 204-216.
3. K. Rama Krishna, V. V. Sobha and A. Rami Reddy, “Effect of Magnetic Field on Mixed Convection in Porous Medium”, Ultra Science, 2006,Vol 18 (2)M, Pp. 181-190.
4. S. Satyanarayana and A. Rami Reddy, “Theorems on Structure of Minimum Counter Example to the Fiorini-Wilson Fisk Conjecture”, International Journal of Computational Mathematical Ideas, July 2009, Vol. 1 (2).
5. A. Rami Reddy and G. Venkata Ramana Reddy, “ Radiation Effects on MHD Free Convection Flow Past a Semi Infinite Moving Vertical Porous Plate with Soret and Dufour Effect”, International Journal of Computational Mathematical Ideas, January 2010,Vol. 2 (1 & 2).
6. K.V.N.V.S. Prasad, Dr. Ch. V. Ramana Murthy and Dr. A. Rami Reddy, “Nature of skin friction and flow rate in case of heat and mass transfer in an Oscillating Plate in Porous Media”, International Journal of Advances in Science and Technology, Vol. 3, No. 1, 2011-July issue, Pp. 103 – 120. ISSN No. 2229-5216.
7. K.R. Kavitha, Dr. Ch. V. Ramana Murthy and Dr. A. Rami Reddy, “Convective MHD Flow of A Second Order Fluid in An Inclined Porous Channel Considering Darcy’s Effect”, International Journal of Advances in Science and Technology, Vol. 3, No. 1, 2011-July issue, Pp. 121 – 137. ISSN No. 2229-5216.

8. Y. P. C. S. Anil Kumar, Ch. V. Ramana Murthy and A. Rami Reddy."FACTORS INFLUENCING VELOCITY IN CASE OF CONVECTIVE MHD FLOW PAST ON ACCELERATED INFINITE VERTICAL POROUS PLATE" communicated to Advances in Theoretical and Applied Mathematics (ATAM).

9. D. Vijay Kumar, Ch. V. Ramana Murthy and A. Rami Reddy."VARIATION OF SKIN FRICTION WITH RESPECT TO VARIOUS CRITICAL PARAMETERS ON MIXED CONVECTIVE MHD FLOW AND MASS TRANSFER OVER AN ACCELERATED INFINITE INCLINED PLATE" communicated to Advances in Theoretical and Applied Mathematics (ATAM).

10. K. Jhansi Rani, Ch. V. Ramana Murthy and A. Rami Reddy." ANALYSIS OF FLOW RATE WITH RESPECT TO VARIOUS FLOW ENTITIES IN CASE OF mhd FLOW PAST AN ACCELERATED INFINITE VERTICAL POROUS PLATE" communicated to Advances in Theoretical and Applied Mathematics (ATAM).

➤ **CERTIFICATION COURSES:**

1.Certified from NPTEL online certification (4 Weeks) in "Introduction to Probability and Statistics" conducted by IIT Madras in the year 2018.

2.Certified from NPTEL online Certification (8 weeks) in " Multivariable Calculus" conducted by IIT Roorkee in the year 2018.

➤ **SEMINARS/WORKSHOPS ATTENDED:**

1. One-day work shop on "Research Opportunities for Women & Young Scientists in Engineering, Science & technology" on 18th December, 2010 at LBRCE.

2. Three day work shop on "National workshop on Ancient Indian Sciences with a special Focus on Vedic Mathematics" from 24-10-2002 to 26-10-2002, at Guru Nanak Dev Engineering College, Bidar.

3. AICTE-ISTE summer school on "Advances in Mathematical modeling and Engineering solutions" on 28-05-2001, Vellore Engineering college, Vellore.

4. Two-Day ISTE Training Program on "Induction Training for Teachers" organized by Department of Mechanical Engineering, RVR&JCC engineering college, Guntur.

5. Three – Day FDP on "Moodle as ICT Tool for Teaching & Learning Process" Organized during 1st to 3rd November, 2018.

**2) K.Bhanu Lakshmi**

➤ **Research Publications:**

1.K.P.R.Rao , K.Bhanu Lakshmi† and N.Srinivasa Rao Hacettepe Journal of Mathematics and Statistics Volume 43 (6) (2014), 963 – 969 "Common fixed and coincidence point theorems for maps in Menger space with Hadzic type  $t$  – norm" The Journal of Mathematics and Computer Science / TJMCS Vol .4 No.4 (2012) 585-590 "A Unique Common Fixed Point Theorem For Three Mappings in  $G$  –Cone metric spaces" .

2. K.P.R.RAO ,K.B.LAKSHMI 2 AND Z.MUSTAFA3 Int. J. Nonlinear Anal. Appl. 2 (2011) No.2, ...-... ISSN: 2008-6822 (electronic) "A UNIQUE COMMON FIXED POINT THEOREM FOR SIX MAPS IN GMETRIC SPACES" .

3. K.P.R. Rao, K. Bhanu Lakshmi "Journal of Advanced Research in Pure Mathematics Online ISSN: 1943-2380 Vol. 3, Issue. 2, 2011, pp. 93-99 doi: 10.5373/jarpm.532.080710 "Common fixed point theorems in d-complete Hausdorff topological spaces with implicit relations.

4. K. P. R. Rao , K. Bhanu Lakshmi Journal of Advanced Studies in Topology eISSN: 2090-388X pISSN: 2090-8288 Vol. 3, No. 4, 2012, 12–19 c 2012 Modern Science Publishers www.m-sciences.com RESEARCH ARTICLE Fixed and Related Fixed Point Theorems for "Three Maps in G-Metric Spaces".

➤ **CERTIFICATION COURSES:**

1. Got certified with Elite from NPTEL online certification course (12 Weeks) on "Differential Equations for Engineers" conducted by IIT Madras in the year 2017.
2. Got NPTEL online certification course (04 Weeks) on "Introduction to probability and statistics" conducted by IIT Madras in the year 2018.
3. Got certified with Elite from NPTEL online certification course (12 Weeks) on "Integral equations, calculus of variations and its applications" conducted by IIT Madras in the year 2018.
4. Got certified with Elite+Silver from NPTEL online certification course (12 weeks) on "Mathematical methods & Its applications" conducted by IIT Roorkee in May,2019.

➤ **SEMINARS/WORKSHOPS ATTENDED:**

1. FDP on NPTEL online certification course (12 Weeks) on "Integral equations, calculus of variations and its applications" conducted by IIT Madras in the year 2018.
2. Attended two day Workshop on "Hands-On Training Program" during 20th & 21st March 2014 at LBRCE Mylavaram.
3. Attended two day National seminar on "Modern Trends in Mathematical and Physical Sciences" during 20th & 21st January, 2012 at Dr. M. R. Appa Rao PG Centre, Nuzvid.
4. Attended two day FDP on "In-house Teacher's Training programme" during 24th & 25th November 2011 at LBRCE Mylavaram.
5. Attended one day Workshop on "Research Opportunities for women & young Scientists in Engineering" during 18th September 2010 at LBRCE Mylavaram.

**3)T. Radha Rani**

➤ **Research Publications:**

1. T Radha Rani, Ch Padma, B Ramesh, N V Nagendram, and S V M Sarma research article "A Note on Finite Pseudo Artinian Regular Delta Near Fields (FP AR-Delta-NF)" communicated to International Journal of Advances in Algebra, IJAA, Jordan on 22 nd August 2012.

2. T Radha Rani, N V Nagendram, Dr T V Pradeep Kumar and Dr Y V Reddy "A Generalized Near Fields and (m, n) Bi-Ideals over Noetherian regular Delta-near rings (GNF-(m, n) BI- NR-delta-NR)" , communicated to International Journal of Theoretical Mathematics and Applications (TMA), Greece, Athens, dated 08-04-2012.

3. Smt.T.Radha Rani, N V Nagendram, Dr T V Pradeep Kumar and Dr Y V Reddy "Applications of Linear Programming on optimization of cool freezers(ALP-on-OCF)" Published in International Journal of Pure and Applied Mathematics, IJPAM-2012-17-670 ISSN-1314-0744 Vol-75 No-3(2011).

4. T Radha Rani, A. Gangadhara Rao, P.M.Padmala "partially ordered filters in partially ordered semi groups" published in International Journal of Pure Algebra -4(8), 2014, 1-10 ISSN 2248-9037, August 2014.

5. T.Radha Rani , M. Sowjanya, Dr. A.Gangadhara Rao, Dr.A.Anjaneyulu "r-regular near rings" Published in journal of Engineering Research And Application ISSN 2248-9622, Vol-8, Issue8(part-2) Aug 2018 pp no 11-19.

6. T.Radha Rani , Dr. A.Gangadhara Rao, Dr.A.Anjaneyulu, M. Sowjanya "f- Prime Radical in semi group" Published in International Journal of Research ISSN 2236-6124, Vol-8, Issue3, March 2019 pp no.1696-1707.

➤ **Conferences:**

1. Presented a Paper on "f- Prime Radical in semi group" , A Two day International conference on "Recent Inventions and Innovations in Mathematical Sciences" 28th February & 1st March 2019 at Andhra University, Visakhapatnam.

➤ **CERTIFICATION COURSES:**

1. Got certified with Elite from NPTEL online certification course (8 Weeks) on "Introduction to Research " conducted by IIT Madras in the year 2018.
2. Got certified with Elite from NPTEL online certification course (8 Weeks) on "Basic Linear Algebra " conducted by IIT Bombay in the year 2019.

➤ **SEMINARS/WORKSHOPS ATTENDED:**

1. Attended a "In house Teacher Training Programme" 23rd Nov 2011 Attended UGC sponsored two days National Seminar on "Modern Trends In Mathematics And Physical Sciences" DAR College, Nuzvid, 20th&21st Jan,2012
2. Attended the 4-day Teacher training programme conducted by LBRCE from 6th to 9th Nov 2012 Attended Two day workshop on "Hands on Training Program on MATLAB and its applications in Digital image processing" on 20th & 21st Mar 2014.
3. Presented a Paper on B\*Near-Rings , UGC sponsored Two day national work shop on "Latest developments in algebra and its applications"24th & 25th Nov 2014 in TJPS College, Guntur.
4. Attended Two Day Workshop on "Out Come Based Education" Organized by LBRCE,6<sup>th</sup> and 7th Jun ,2017 Attended Two-day FDP on "Paradigms of Education: Role of a Teacher and Reflective Teaching" during 17th &18th JULY 2018 in association with AIMS at LBRCE Mylavaram.
5. Attended a Three – Day FDP on "Moodle as ICT Tool for Teaching & Learning Process" by LBRCE from 1st to 3rd November, 2018.

**4) Ch.Padma**

➤ **Research Publications:**

1. Ch Padma, N.V Nagendram, Dr. T V Pradeep Kumar and Dr.Y V Reddy, "A Note on Pi-Regularity and Pi-S-Unitality over Noetherian Regular Delta Near Rings(PI-R-PI-S-U-NR-Delta-NR)", International Electronic Journal of Pure and Applied Mathematics,75 (4) (2011)ISSN-1314-0744.

2. CH.Padma, N.V Nagendram , Dr. T V Pradeep Kumar and Dr Y V Reddy “Ideal comparability over Noetherian regular Delta-near rings (ICNR- Delta-NR)”, International Journal of Advances in Algebra(IJAA,Jordan),ISSN 0973-6964 Vol:5,NO:1(2012),pp.43-53@ Research India publications,Rohini,New Delhi.

3. Ch Padma, B Ramesh,N V Nagendram,TRadha Rani and S V M Sarma research article "A Note on Finite Pseudo Artinian Regular Delta Near Fields(FP AR-Delta-NF)", International Journal of Advances in Algebra, (IJAA,Jordan) ISSN 0973-6964 Volume 5, Number 3 (2012), pp. 131-142, 2012.

➤ **CERTIFICATION COURSES:**

1. Got certified with Elite from NPTEL online certification course (8 Weeks) on “Introduction to Research ” conducted by IIT Madras in the year 2018.
2. Successfully completed a course on “Basic Linear Algebra “ from NPTEL online certification course (8 Weeks) conducted by IIT Bombay in the year 2019.

➤ **SEMINARS/WORKSHOPS ATTENDED:**

1. Attended One day Work shop on “Research opportunities for women and young scientist in Engineering, Science & Technology” held in LBRCE 18thDec, 2010.
2. Attended a “In house Teacher Training Programme” 23rd Nov, 2011 By LBRCE. Attended UGC sponsored two days National Seminar on “Modern Trends in Mathematics and Physical– Sciences” DAR College, Nuzvid, 20th&21stJan, 2012.
3. Attended Two day workshop on “Hands on Training Program on MATLAB and its applications in Digital– image processing” on 20th& 21stMar 2014 by LBRCE.
4. Attended Two Day Workshop on “Out Come Based Education” Organized by LBRCE,6th–& 7th June, 17.
5. Attended a Three – Day FDP on “Moodle as ICT Tool for Teaching & Learning Process” Conducted By LBRCE 1st to 3rdNovember, 2018.

**5) M.Rami Reddy**

➤ **CERTIFICATION COURSES:**

1. Certified from NPTEL online Certification Course (8 weeks) in “Numerical Methods” conducted by IIT Roorkee in the year 2017.
2. Certified with Elite from NPTEL online certification (4 Weeks) in “Introduction to Probability and Statistics” conducted by IIT Madras in the year 2018.
3. Certified with Elite+Gold form NPTEL online certification (8 weeks) in “ Descriptive Statistics with R software” conducted by IIT Kanpur in May,2019.

➤ **SEMINARS/WORKSHOPS ATTENDED:**

1. 1.Attended a Two day UGC sponsored National Workshop on “New Trends on SQC, Reliability with R-Programming” on 30<sup>th</sup> & 31<sup>st</sup> January, 2019 at Acharya Nagarjuna University organized by Department of Statistics, Acharya Nagarjuna University, Nagarjuna Nagar, Guntur.

2. Attended a Two day “HANDS-ON WORKSHOP ON STATISTICAL DATA ANALYSIS USING R“ on 8th and 9th December, 2018 at VIT-AP organized by Department of Mathematics, VIT-AP, Amaravathi.
3. Attended a Three day FDP on “MOODLE AS ICT TOOL FOR TEACHING AND LEARNING PROCESS“ from 1st to 3rd November, 2018 at LBRCE organized by CSE and EEE Departments, LBRCE.
4. Attended a Two day FDP on “PARADIGMS OF EDUCATION – ROLE OF A TEACHER AND REFLECTIVE TEACHING“ on 17th and 18th July, 2018 at LBRCE organized by AIMS.
5. Attended a UGC-DRS-II(SAP) AND ANU funded National Workshop on “STATISTICAL COMPUTATION WITH R” on 22nd February, 2017 and National Seminar on “SQC, RELIABILITY, DESIGN OF EXPERIMENTS AND OPERATIONS RESEARCH” on 23rd and 24th February, 2017 at Acharya Nagarjuna University, GUNTUR.
6. Attended a Two day FDP on “HANDS-ON TRAINING PROGRAM ON MATLAB AND ITS APPLICATIONS IN DIGITAL IMAGE PROCESSING “ on 20th and 21st March, 2014 at LBRCE organized by CSE Department, LBRCE.
7. Attended a one day workshop on “RESEARCH OPPORTUNITIES FOR WOMEN AND YOUNG SCIENTISTS IN ENGINEERING, SCIENCE & TECHNOLOGY “ on 18th December, 2010 at LBRCE organized by LBRCE, Mylavaram.

#### **6) K. N. V. Lakshmi**

##### **➤ CERTIFICATION COURSES:**

1. Got certified with Elite+1% Topper from NPTEL online certification course (12 Weeks) on “Differential Equations for Engineers" conducted by IIT Madras in the year 2017.
2. Got certified with Elite+ 1% Topper from NPTEL online certification course (4 Weeks) on “Introduction to Probability and Statistics" conducted by IIT Madras in the year 2018.
3. Got certified with Elite Gold and 1% Topper from NPTEL online certification course (12 Weeks) on “Mathematical Methods and its Applications” conducted by IIT Roorkee in May, 2019.

##### **➤ SEMINARS/WORKSHOPS ATTENDED:**

1. Attended two day National seminar on “Modern Trends in Mathematical and Physical Sciences” during 20th & 21st January, 2012 at Dr. M. R. Appa Rao PG Centre, Nuzvid.
2. Attended two day FDP on “Paradigms of Education-Role of a Teacher and Reflective Teaching” during 17th & 18th July, 2018 at LBRCE Mylavaram organized by AIMS.

#### **7) G. Vijaya Lakshmi**

##### **➤ CERTIFICATION COURSES:**

1. Got NPTEL online certification course (12 Weeks) on “Differential Equations for Engineers" conducted by IIT Madras in the year 2017.

2. Got certified with Elite from NPTEL online certification course (12 Weeks) on “Integral equations , calculus of variations and its applications" conducted by IIT Madras in the year 2018.
3. Got certified from NPTEL online certification course (12 Weeks) on “Mathematical Methods and its Applications” conducted by IIT Roorkee in May, 2019.

➤ **SEMINARS/WORKSHOPS ATTENDED:**

1. Attended two day National seminar on “Modern Trends in Mathematical and Physical Sciences” during 20th & 21st January, 2012 at Dr. M. R. Appa Rao PG Centre, Nuzvid.
2. Attended two day FDP on “Hands-on Training Program on MATLAB and its Applications in Digital Image Processing” on 20th & 21st March, 2014 at LBRCE organized by CSE Department of LBRCE & IEEE.
3. Attended two day National seminar on “MOODLE AS ICT TOOL FOR TEACHING AND LEARNING PROCESS” during 1st TO 3rd November, 2018 at LBRCE.
4. FDP on NPTEL online certification course (12 Weeks) on “Integral equations , calculus of variations and its applications" conducted by IIT Madras in the year 2018.