

KNOWLEDGE ASSET 2022-23



Name: Dr. N.POTHANNA

Designation: Associate Professor.

Department: H&S

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Experience (in years):17 , Teaching:17, Research: 12, Others (If any, Specify):

1. Educational / Technical qualifications:

S.No	Level (UG / PG / Ph.D)	Year of passing	Specialization
1.	Ph.D	2014	Fluid Dynamics
2.	M.Sc.	2005	Applied Mathematics
3.	B.Ed.	2002	Mathematical science
4.	B.Sc.	2001	M.St.Cs

2. Teaching and Learning:

2.1. Teaching Interests:

- Laplace Transforms, Fourier Transforms
- Z-Transforms, Trigonometry
- Diff. Equations
- Matrices, Complex Analysis

2.2. Novel Teaching & Learning Techniques adopted:

- Think Pair Share
- POGIL
- WIT&WIL
- Learning by doing
- Mind Maps
- Concept maps

2.3. Involvement in curriculum updating / Design: **BOS**

3. Co-curricular and Extra-Curricular Activities

3.1. Interests and Hobbies:

- Reading News Papers
- Playing Cricket and Caroms.

3.2. CCA/ECA Organized: NIL

3.3. CCA/ECA participated:

- Member Sintilashunz and Sports fest
- Member Ant-Ragging committee

3.4. Counseling and Mentoring Activity: NA

3.5. Committees involved in:

Department level:

- BOS

Institute Level:

- Member-Invitations Committee.
- Coordinator- Certificate Courses

4. Conference / Workshop / Seminar / Guest Lectures :

4.1 Conducted:

- Organized a two day workshop on “ Basic tools in Matlab and R-Language at VNRVJIET, from 17th – 18th March, 2016.
- Organized a FDP on “Essential Mathematics for Machine Learning” during 27th to 31st july, 2020.
- Organized an orientation on “MATLAB” for I.B.Tech students on 3rd May, 2021.

4.2 Attended:

- Attended workshop on “Computational Methods with Splines”, during March 20-21, 2009 in NIT, Warangal.
- Attended workshop on “Recent Trends in Mathematical Sciences”, during March 30-31,2010 in Osmania University, Hyderabad
- Attended workshop on “Applications of Mathematics and Statistics for Engineering”, during 23rd and 24th July 2010 in JNTU, Hyderabad.
- Attended a guest lecture on Material science organized by EEE department at VNRVJIET in 2011.
- Attended a two day workshop on ‘The Pedagogy of Technical Writing’ on 6&7th Sep, 2012, VNRVJIET, Hyderabad.
- Attended a lecture on Excellence in engineering education by Dr P.Raghavendra Rao on September 28th 2012.
- Attended Engineer’s day lecture about “Our Inputs for Greener Environment” on by Dr. C.Jyotsna on September 15th 2012.
- Attended a three day workshop on ‘Art of Teaching’ in May,2013, VNRVJIET, Hyderabad
- Attended a one day workshop on “INTRO TO POGIL” organized by Dr.Sandhya.kode and Dr.C.Jyotsna on February 16th 2013.
- Attended all the POGIL follow up sessions organized by Dr.Sandhya.kode and Dr.C.Jyotsna conducted on March 1st and 13th, April 13th 2013.
- Attended a one day seminar on “A Binds View of Nano Science and Technology in Indian Research” by Dr.V.Brahmaji Rao on July 25th 2013.

- Attended a lecture on Teaching methodologies and classroom Management by Prof. Rao Unnava at VNRVJIET on 19th March 2013.
- Attended a EMS lecture on Intellectual property Rights by Dr A.S.Rao at VNRVJIET
- Attended a seminar on ‘Introduction to Rough sets’ by K.Srinivas on 27/7/2013 at VNRVJIET.
- Attended a seminar on “Understanding the Higgs Boson “by Prof. Sridhar Rao on 14/07/14 at VNR VJIET.
- Attended a training programme on “Advanced Numerical Methods in Fluid Dynamics” during April-17th -19th, 2015 in NIT, Warangal.
- Attended a three day workshop on “FINITE ELEMENT METHOD IN MECHANICAL ENGINEERING” 25th – 27th Feb, 2016.
- Attended a two day workshop on “Basic tools in Matlab and R-Language at VNRVJIET, from 17th – 18th March, 2016.
- Attended a one day workshop on “Matrix Analysis Through Octave organized by IIT Hyderabad Teaching Learning Centre” , 12th May , 2016 VNRVJIET, Hyderabad.
- Attended a one day workshop on “Arduino For Everyone organized by IIT Hyderabad Teaching Learning Centre”, 1st July , 2016 VNRVJIET, Hyderabad.
- Attended a training programme on “Numerical Methods on Optimization Techniques in Engineering Research, December 14th -20th , 2016, CMR Engineering College, Medchal, Hyderabad.
- Attended AICTE FDP (FDP 101X) on Foundation Programme in ICT for Education , Aug 3,2017 to Sept 7, 2017, Conducted by IIT Bombay.
- Attended AICTE FDP (FDP 201X) on Pedagogy for online and blended teaching learning process, Sept 14, 2017 to Oct 12,2017, Conducted by IIT Bombay .
- Attended Faculty Development Program for the Course on “Computer Science & Business Systems”, July 15, 2019 to July 17, 2019, Organized by TCS at ISI, Kolkata.
- Attended Faculty Development Program for the Course on “Computer Science & Business Systems”, December 9th , 2019 to December 10th , 2019 Organized by TCS at TCS Hyderabad.
- Attended Faculty Development Program on “Discrete Mathematics for Engineering Stream”, December 19th , 2019 to December 24th , 2019 Organized by Malla Reddy Inst. of Tech.& Science, Hyderabad.
- Attended Self-paced training course on “MATLAB Onramp”, 29-Feb-2020 , online MATLAB course.
- Attended Online training Faculty Development Program on “LATEX”, April 27th , 2020 to May2nd, 2020 organized by Sanjay Godawath University, Kolhapur in association with IIT Bombay .
- Attended Online training Faculty Development Program on “Machine Learning Algorithms, Applications & Advantages”, May 25th , 2020 to May30th ,2020 organized by Kamala Institute of Technology & Science, Singapur in association with Computer Society of India, Hyderabad Chapter.
- Two day online National seminar on “Recent Research Topics in Mathematics” , 28th & 29th of May 2020 organized by Auxilium college, Vellore.
- One Day National webinar on “Research(Why?,What?,How?)” , 14th June,2020 Organized by Department of Mathematics(H&S), Vignana Bharathi Institute of Technology, Hyderabad.
- Attended One Week Online Faculty Development Programme on “Taxonomy of Softwares Related to Mathematical Sciences”, 9th June 2020 – 14th June, 2020 organized by Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad.

- One Day webinar on “Single and Two Species Population Models”, 16th June 2020 Organised by Department of Basic Sciences & Humanities ,Vignan’s Institute of Management & Technology for Women, Hyderabad.
- One Day international webinar on “Laplace Transforms and its applications”, 22th June,2020 Organized by Department of Mathematics(H&S), Malla Reddy Institute of Technology&Science, Hyderabad.
- One Day webinar on " Cyber Forensics", 23rd June, 2020 Organized by Department of Mathematics , Aurora’s Degree and PG college, Hyderabad.
- One Day National Webinar on “Modelling and Simulation of Fluid Flows Using Partial Differential Equations”, 25th June, 2020 Organized by Department of Humanities & Sciences , CMR Engineering College, Hyderabad.
- Four Day National webinar on “ Fluid Mechanics and it’s applications in Engineering Science”, 24th – 27th June , 2020 organized by Department of H&S at PESITM, Karnataka.
- One Day National Webinar on “Differential Equations and its applications”, 28th June, 2020 Organized by Department of Mathematics(H&S), Malla Reddy Institute of Technology&Science, Hyderabad.
- Two Day National Webinar on “Applications of Mathematics for Engineers”, 4th -5th July, 2020 Organized by Department of Science and Humanities, Bharat Institute of Engineering&Technology, Hyderabad.
- Attended Two Day online FDP on “Applications of Mathematics in Engineers”, 3rd and 4th July, 2020 Organized by Department of Mathematics and Humanities, MGIT, Hyderabad.
- Attended A Two Day National E-Seminar on “Recent Advances in Mathematics” , 20th and 21st December, 2021 Organized by the Departments of Mathematics, Institute of Science, GITAM, Visakhapatnam, A.P
- Attended A Two Day International Symposium on “MATHEMATICAL SCIENCES AND THEIR APPLICATIONS:MSATA-2022”, JANUARY 28th&29th , 2022 organized by Department of Applied Mathematics, Yogi Vemana University , Kadapa.
 - Attended One Day Webinar on “Approach towards future with Mathematical Sciences”, organized by the Departments of Mathematics& Statistics on 17th July, 2021, Keshav Memorial Institute of Commerce and Sciences, Hyderabad.
 - Attended 3rd International Conference on “Mathematical, Physical and Computational Sciences” , Organized by the Departments of Mathematics on 27th and 28th August, 2021, Aurora Degree and P.G college, Hyderabad.
 - Attended One Week International Online Faculty Development Programme (FDP) on Mathematics and Statistics to commemorate birth anniversary of Living Legend Prof.C R Rao, Conducted by the Department of Mathematics, R.B.V.R.R. WOMEN'S COLLEGE (AUTONOMOUS) , Hyderabad, during 28th Dec.2020 - 02nd Jan. 2021
 - Attended One week online National level Faculty Development Program on “Role of Mathematics in latest Engineering Trends” , organized by the Department of Mathematics, under Department of Science and Humanities, Lords institute of engineering and technology, Hyderabad, during 4th June 2021-10th June 2021.

- Attended Five Days National FDP on “Innovative Teaching And Research in Science: Exploring The New Horizons”, organized by Science Forum in Association with IQAC, Government First Grade College, Vijayanagar, Karnataka, during 10th June to 15th June 2021.
- Attended Six Day National FDP on “Mathematics on various Platforms”, organized by Department of Mathematics, Bharat Institute of Engineering&Technology, Hyderabad during 17th June to 22nd June 2021.
- Attended Six Day National FDP on “Applications of Mathematics in Science& Technology”, organized by Department of Science and Humanities, Narasu’s Sarathy Institute of Technology, Salem, Tamilnadu, during 21st June to 26th June 2021.
- Attended Six Day International FDP on “ Mathematics and Statistics in Emerging Field”, organized by Department of Mathematics, KPR Institute of Engineering and Technology, Arasur, Coimbatore, Tamilnadu, 5th July to 10th July 2021.
- Attended Three Day FDP on "Symposium on Engineering Mathematics with MATLAB", organized by IUCEE Foundation, RV College of Engineering and MathWorks , Bangolore, Karnatakaduring 6th to 8th Sep 2021.

5. Academic Contribution and Research & Consultancy:

5.1. Invited Lectures: Delivered lecture on “ Vector differentiation, Integration and its Applications” in One day webinar on “ Vector Calculus and its Applications” on 21-01-20121 at Bhavans College, Sainik puri, Secunderabad.

5.2. Articles / Chapters published in Books: NIL

5.3. Books published as single author or as editor: NIL

5.4. Projects Guided :

a) UG : NA b) PG : NA

5.5. Research Interests : Fluid Dynamics

5.6. Ph.D students :

a) Enrolled : NIL b) Submitted : NIL c) Awarded : NIL

5.7. Papers published in reviewed journals :

S.No	Title of the Paper	Journal Name Vol.No. PP	ISBN/ISSN No.	Impact Factor/ Citation Index	National/ International
1	Steady Flow of a Slightly Thermo-Viscous Fluid in a Porous Slab	International Journal of Mathematical Archive, Vol.2(11), 2013, pp.294-299	ISSN: 2229-5046	4.091	International

	Bounded Between two Fixed Porous Parallel Plates.				
2	Slow Steady Motion of a Thermo-Viscous Fluid in a Porous Slab Bounded Between two Impermeable Parallel Plates.	Advances in Applied Science Research , Vol.3(5), 2012, pp.2866-2883, Pelagia Research Library, Coden USA: AASRFC.	ISSN: 0976-8610	0.421	International
3	Unsteady Flow of a Thermo-Viscous Fluid in a Porous Slab over a Flat Plate of Finite Depth with Fluctuating Bottom.	Advances in Computational Mathematics and its Applications, Vol.2 (2), 2012, pp.285-291, World Science Publisher, United States.	ISSN:2167-6356	-	International
4.	Slow Steady Motion of a Thermo-Viscous Fluid Between two Parallel Plates with Constant Pressure	International Journal of Research In Engineering and Technology, Vol.2 (11), 2013, pp.294-299.	eISSN: 2319-1163 p ISSN: 2321-7308.	-	International

	and Temperature Gradients.				
5.	Linearization of Thermo-Viscous Fluid in a Porous Slab Bounded Between two Fixed Permeable Horizontal Parallel Plates in the Absence of Thermo-Mechanical Interaction Coefficient.	International Journal of Modern Trends in Engineering and Research, Vol.1 (5), 2014, pp. 413-434.	eISSN:2349- 9745, p ISSN: 2393-8161.	1.711	
6.	Effect of Strain Thermal Conductivity on Slightly Thermo-Viscous Fluid in a Porous Slab Bounded between Two Parallel Plates	Journal of Advanced Computing (2015) , Columbia International Publishing , Vol. 4 No. 1 pp. 37-58 , doi:10.7726/jac.2015.1003	ISSN: 2165-7823	-	International
7.	Flow of Slightly Thermo-Viscous Fluid in a Porous Slab Bounded Between	International Journal of Advances in Applied Mathematics and Mechanics" (IJAAMM), Vol.2 (3), 2015, pp. 225-233.	ISSN: 2347-2529	0.3	International

	two Permeable Parallel Plates				
8.	Unsteady Forced Oscillations of a fluid bounded by rigid bottom	International Journal of Control Theory and Applications, Vol.9(19), 2016, pp.9049-9054	ISSN :0974-5572	0.53	International
9.	Convective Flow Through Fixed Circular Pipe	International Journal of Physics and Mathematical Sciences, Vol. 6 (4) , 2016, pp. 73-76.	ISSN: 2277-2111		International
10.	Steady Flow Around a Moving Circular Pipe in a Thermo-viscous Fluid in the Absence of Pressure Gradient	International Journal of Advanced Science and Technology, Vol. 99 , 2017, pp.81-90.	ISSN: 2005-4238		International
11.	Flow generated by slow steady rotation of a permeable sphere in a micro-polar fluid	Alexandria Engineering Journal(Elsevier), Vol 56, pp.679-685,2017.	ISSN: 1110-0168	0.439	International
12.	A numerical study of coupled non-linear equations	Int. J. of Applied Mechanics and Engineering(Degruyter), Vol.22, No.4, pp.965-979, 2017. (Indexed in	ISSN 2353-9003(Scopus, Degruyter)	0.42	International

	of Thermo-viscous fluid flow in cylindrical geometry	<i>scopus</i>)			
13.	Viscous Fluid Flow Past a Permeable Cylinder	Lecture Notes in Mechanical Engineering Book Series(Springer), pp.285-293, Dec, 2018.	ISSN: 2195-4356	0.37	International
14.	Unsteady Thermo-Viscous Flow in a Porous Slab over an Oscillating Flat Plate	Journal of Porous Medium, Vol.22(5), pp.531–543 , 2019. (SCI, Begel House)	ISSN:1934-0508	1.035	International
15.	The Unsteady Flow of a Fluid of Finite Depth with an Oscillating Bottom	International Frontier Science Letters, Vol. 15, pp 1-8, 2020.(SciPress)	ISSN: 2349-4484		International
16.	Rotary Oscillations of a Permeable Sphere in an Incompressible Couple Stress Fluid	Advances in Fluid Dynamics , Part of Lecture Notes in Mechanical Engineering Book Series(Scopus , Springer), pp 135-146, July, 2020.	ISSN: 2195-4356	0.37	International
17.	Couple Stress Fluid Flow Due to Slow Steady	Nonlinear Engineering Modelling and Application, Vol. 9, Issue 1, pp.352–360, 2020	eISSN: 2192-8029, ISSN 2192-8010(Scopus, Degruyter)	0.27	International

	Oscillations of a Permeable Sphere				
18.	Numerical Solution of Singularly Perturbed two Parameter Problems using Exponential Splines	Int. J. of Applied Mechanics and Engineering(Degruyter), Vol.26, No.2, pp.160-172, 2021.	ISSN 2353-9003 IF: 0.77(<i>Indexed in scopus</i>)	0.77	International

5.8. Papers presented at National / International Journals :

S.No	Title of the Paper	Names of the Conference/ Seminars	National/ International	Period
1.	Unsteady Flow of a Thermo-Viscous Fluid in a Porous Slab Over a Flat Plate of Infinite Depth With an Oscillating Bottom.	Presented this paper at a seven day National work shop on Mathematical Modeling in Life and Social Sciences at Sumathi Reddy Institute of Technology for Women, Warangal.	National	11 th -16 th June, 2012.
2.	An Approximate solution of thermo-viscous fluid flow between two parallel plates bounded in a porous medium-A finite element Galerkin approach	Presented this paper at a “National Conference on Recent Advances of Mathematical Techniques in Science and Engineering” organized at Osmania University, Hyderabad.	National	30 th -31 st 10uly, 2017.
3.	Rotary Oscillations of a permeable sphere in an incompressible couple stress fluid.	Presented this paper at “International Conference on Applications of Fluid Dynamics” organized at Vellore Institute of Technology, Vellore, Tamilnadu.	International	13 th -15 th December , 2018.
4.	Unsteady slow motion of thermo-viscous fluid flow between two horizontal parallel plates.	Presented this paper at “Telangana State Science Congress” organized by Telangana Academy of Sciences at National Institute of Technology, Warangal, Telangana.	National	22 nd -24 th December, 2018.
5.	Steady flow of thermo-viscous fluid between two fixed parallel porous plates- a perturbation	Presented this paper at “International Conference on Recent Inventions and Innovations in Mathematical Sciences”	International	28 th Feb., and 1 st March, 2019.

	technique	organized by Department of Applied Mathematics, Andhra University, Visakhapatnam, Andhra Pradesh.		
6.	Steady flow of a thermo-viscous fluid between two fixed Horizontal parallel porous plates-	Presented this paper at “International Conference on Mathematical Sciences and Applications” organized by Department of Mathematics, School of Technology, GITAM(Deemed to be University), Hyderabad.	International	9 th Aug. to 11 th Aug, 2019.
7.	A Numerical Approximation of Coupled Non-Linear Equations of Steady flow of Thermo-viscous Fluids	Presented this paper at “International Web Conference on Mathematics for Materials Science, Signals, Images and Structured Data” [ICMMSIS’20] organised by Department of Mathematics, Bannari Amman Institute of Technology, Sathyamangalam, Tamil Nadu, India.	International	23 rd to 24 th July 2020.
8.	Influence of Darcy’s porosity on thermo-viscous fluid flow in a porous slab bounded between two impermeable parallel plates	Presented this paper at online “International Conference on Advances in Science Engineering and Mathematics ”, Organized by Annamacharya Institute of Technology and Sciences (An Autonomous Institution) Rajampet-516126, A.P. India.	International	August 7 th – 9 th , 2020
9.	Effect of Thermo-Viscous Coefficient on Steady Flow of a Fluid between two Permeable Horizontal Parallel Plates	Presented this paper at online “International conference on Research Trends in Mathematics” [ICRTM-2020] organized by Division of Mathematics (School of Advanced studies) , VIT-Chennai, Tamil Nadu , India.	International	24-08-2020 and 25-08-2020
10.	A Numerical Study of Steady flow of Thermo-viscous Fluid between two Horizontal Parallel Plates	Presented this paper at online “2nd International Conference on Mathematical Techniques and Applications” [ICMTA-2021] Organized by Department of	International	24.03.2021 to 26.03.2021

	in a Porous Medium	Mathematics SRMIST Tamil Nadu, India.		
11.	A Numerical and Analytical Study of Thermo-Viscous Fluid through a Porous Media bounded by two Fixed Parallel Plates	Presented this paper in “4th International European Conference on Interdisciplinary Scientific Researches Organized at Warsaw, Poland	International	August 8-9, 2021
12.	Micro Polar Fluid Flow Past a Porous Permeable Sphere	Presented this paper in “4th International European Conference on Interdisciplinary Scientific Researches Organized at Warsaw, Poland	International	August 8-9, 2021
13.	The Laminar Flow of an Incompressible Fluid through a Porous Media Bounded by Two Parallel Plates at Rest	Presented this paper in “4th International European Conference on Interdisciplinary Scientific Researches Organized at Warsaw, Poland	International	August 8-9, 2021
14.	Magneto-Electric Polarizability in Quasi Crystals	Presented this paper in “4th International European Conference on Interdisciplinary Scientific Researches Organized at Warsaw, Poland	International	August 8-9, 2021
15.	Predicting the Potentially Hazardous Asteroid to Earth using Machine Learning	Presented this paper in “ 2 nd International Conference on Advances in Computer Engineering and Communication Systems ” Organized by Department of Computer Science & Engineering in collaboration with CSI and Springer Nature, VNRVJIET, Hyderabad.	International	13.08.2021 to 14.08.2021

5.9. Sponsored research Projects: NIL

S.No	Title	Agency	Period	Grant amount	Ongoing / Completed

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5.10 Consultancy Projects: NIL

S.No	Title	Agency	Period	Sanctioned Amount	Ongoing / Completed

6. Awards / Honors received:

- Qualified in Telangana SET-2018.
- Received distinguished researcher award-2021 from International Institute of Organized Research (I2OR).
- Received Research Excellence award-2022 from International Institute of Organized Research (I2OR).

7. Motto: Our attitude towards ourselves should be "to be satiable in learning" and towards others "to be tireless in teaching."