

CURRICULUM VITAE

Dr. SAROJ R. YADAV

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Applied Mathematics & Humanities Department,
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➤ Academic Qualifications:

Degree/ Examination	Institute/University/ Board	Percentage	Year of Passing
Ph. D.	S. V. N. I. T., Surat.	-	2009
M. Sc.	South Gujarat University, Surat, India.	79.6%	2003
B. Sc.	College: P. T. Science College,(under SGU), Surat, Gujarat, India.	73.78%	2001
Higher Secondary (XII Standard)	C. C. Shah Sarvajanic English High School, Surat. (Board: GHSB)	64.61%	1998
Secondary (X Standard)	Vidhya Bharati Hindi Vidhyalay, Surat. (Board: GHSB)	77.29%	1996

➤ Teaching Experience:

- On 09-04-2021 joined as **Assistant Professor** in SVNIT, Surat.
- **Full Time Teaching:**
 - From 29/10/2013 to 08-04-2021, worked as Applied Mathematics and Humanities Department, SVNIT as Teaching Assistant.
 - From 20/07/2013 to 28/10/2013, worked in Auro University as **Assistant Professor** in Mathematics.
 - From 22/07/2010 to 19/07/2013 worked as **Lecturer on Contract** in the Deptt. A.M.&H., SVNIT, Surat.
 - From 01/08/2008 to 25/06/2010 worked as teaching assistant in the Deptt. A.M.&H., SVNIT, Surat.

- Since March 2007 joined the Deptt. A.S.&H., SVNIT, Surat as Ph.D. Research Scholar with Institutional Scholarship.
- Worked as Teaching Assistant on contract basis during January 2005 to February 2007, at Mathematics Section of A.S.& H. Deptt. of SVNIT, Surat.

- **Visiting Lecturer:**

- Since 2017 teaching as visiting Faculty in IIIT, Surat.
- Worked as visiting Lecturer in Mathematical Foundation in Computer Science, Deptt. of Comp. Sci., Veer Narmad South Gujarat University, at M. C. A. 1st Semester, academic year 2006-2007.
- Worked as visiting Lecturer in Veer Narmad South Gujarat University, at M.Sc. IT 1st Semester (Operation Research), academic year 2006-2007.
- Worked as Visiting Lecturer on hourly basis from 28th July, 2003 to 9th November, 2004 at Mathematics Section of A.S.& H. Deptt. of SVNIT, Surat.

Courses Taught:

- Engineering Maths-I, II, III and Discrete Mathematics in B. Tech. I & II and Maths-I & II, Numerical Analysis, Linear Algebra, Discrete Mathematics in 5 years integrated M. Sc., SVNIT, Surat.
- Discrete Mathematics (AS205), 2nd Semester B. Tech.-I (CSE & ECE), IIIT, Surat.
- Probability & Statistical Analysis (AS 305), 3rd Semester B. Tech.-II (CSE & ECE), IIIT, Surat.
- Maths-I to B. Sc.-IT and Pre-calculus to BBA students in Auro University, Surat.
- Operation Research in M.Sc. IT in VNSGU, Surat.

➤ **Research Experience:**

- Registered for Ph. D. on 27th July 2005, under guidance of Prof. M.N. Mehta, in field of Fluid Flow through Porous Media.
- In first and second semester of Ph.D., 12 credits earned with CGPA 9.33.
- Thesis entitled “Classical Solution of Non-linear Equations arising in Fluid Flow through Homogeneous Porous Media” was submitted on 8th Jan 2009.
- Viva-voce examination was over on 28th April 2009.
- Ph.D. Notification was issued on 4th May 2009.

** Guided Two M.Sc. Dissertations.

Awards/ Medals

- **Young Researcher Award** for best paper in International Meet, 52nd Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM), December 2009, New Delhi, for the Research Paper entitled “Mathematical Formulation and Analytical Approximate Expression for Co-current Imbibition front in Homogeneous Porous Media.”
- Selected for **Summer Research Fellowships 2010 (IAS)**.

➤ **List of Research Papers Published/Accepted in National/International Journal**

- Yadav, Saroj R. and Mishra V. N. Mishra (2021). An Analytic expression for the Frontal Flow Period in 1D Counter-Current Imbibition including Dynamic capillary pressure into saturated Homogeneous Porous Media. Accepted in AIP Conference Proceedings (Scopus indexed).
- Yadav, Saroj R. and Mehta, M. N. (2014). Analytical Approximate expression for Co-current Imbibition during immiscible two phase flow through porous media. Mathematical Problems in Engineering, Volume 2014. (SCI Journal).
- Mehta, M. N. and Yadav, Saroj R. (2011). An Approximate Analytical Expression Predicting Fingering. Int. J. Pure Appl. Sci. Technol., 5(1) pp. 25-34.
- Mehta, M. N. and Yadav, Saroj R. (2009). Mathematical model and Similarity Solution of Counter-Current Imbibition Phenomenon in Banded Porous Matrix. Int. J. of Appl. Math. and Mech., Vol. 1(1).
- Mehta, M. N. and Yadav, Saroj R. (2009). Approximate analytical expression for phase saturation of injected fluid during fingero-imbibition phenomenon. International Journal of Applied Mathematics, Vol. 22 No.1, pp 19-26.
- Mehta, M. N. and Yadav, Saroj R. (2008). Analytical Approximate expression for Primary Imbibition front in Homogeneous Porous Media. Int. J. of Mathematical Sci. and Eng. Applications, Vol.2 No.2, pp 155-162.
- Mehta, M.N. and Yadav, Saroj R. (2008). Solution of Longitudinal Dispersion Phenomena occurring in two phase flow through Porous Media. JIAM Vol. 30 No. 2, pp 345-350.
- Mehta, M.N. and Yadav, Saroj R. (2007). Solution of problem arising during vertical groundwater recharge by spreading in slightly saturated porous media. Journal of Ultra Scientist of Physical Sciences, Vol. 19 (3) M, 541-546.

➤ **Papers Presented in Conf. /Seminar**

- Yadav, Saroj R. (2021). “Fingero-Imbibition phenomenon under co-current flow condition during immiscible two phase flow through homogeneous porous media”. International Conference on Mathematical Modelling and Simulation in Physical Sciences (MMSPS-2021), 17-18 April, SVNIT, Surat,
- Yadav, Saroj R. (2016). “An Analytic Solution for the Frontal Flow Period in 1D Co-Current Imbibition into saturated Porous Media Including Dynamic capillary pressure Effects”. ICEMS-2016, March 17-19, JNU, Jaipur.
- Yadav, Saroj R. (2014). “Mathematical Model of Co-Current Fingero-Imbibition during immiscible two phase flow through Homogeneous porous media”. 5th National Conference on “Engineering Applications of Mathematics” June 5-6, 2014, MIT Academy of Engineering, Alandi, Pune Maharashtra.
- Yadav, Saroj R. (2014). “Co-Current Imbibition with Dynamic Capillary Pressure during immiscible two phase flow through Homogeneous porous media”. International Conference of GAMS on “Advances in mathematical modelling to real world problems” October 3-6, 2014, SVNIT, Surat.
- Yadav, Saroj R. (2013). “Counter-Current Imbibition in immiscible two phase flow with Dynamic Capillary Pressure”. International Conference on mathematical Sciences, 8-9th March, Manali, India.

- o Yadav, Saroj R. (2009). Mathematical Formulation and Analytical Approximate Expression for Co-current Imbibition front in Homogeneous Porous Media. International Meet, 52nd Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM), December 2009, New Delhi.
- o Mehta, M. N. and Yadav, Saroj R. (2007). Approximate Analytical expression for phase saturation of injected fluid during fingro-imbibition phenomenon. HYDRO-2007, December 21-22, 2007, SVNIT, Surat.
- o Mehta, M. N. and Yadav, Saroj R. (2007). Analytical Approximate Expression for Primary imbibition front in Homogeneous porous Media. International Meet, 52nd Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM), December 2007, Bangalore.
- o M.N. Mehta and Saroj R. Yadav (2007). Solution of problem arising during vertical groundwater recharge by spreading in slightly saturated porous media. International Conference on Current Trends in Industrial and Applied Mathematics held at The Maharaja Sayajirao University of Baroda, during 16th-18th January, 2007.

➤ **Conferences/Seminars attended**

- o “International Conference on Special Functions & Their Application” 27th -29th , 2012, SVNIT, Surat.
- o “56th Congress of Indian Society of Theoretical and Applied Mechanics” 19th -21st Dec 2011, SVNIT, Surat.
- o “76th Annual Conf. of The Indian Mathematical Society” 27th-30th Dec 2010, SVNIT, Surat.
- o “National Conference on Advances in Fluid Flow and Thermal Science” – 2008 22nd to 24th May 2008. SVNIT, Surat.
- o “International Conference on Mathematical Fluid Dynamics”, has been attended during 2nd-7th December, 2004 held at Deptt. of Mathematics& Stat., University of Hyderabad.
- o “38th Annual Conference of Gujarat Ganit Mandal”, has been attended at Jivan Bharati Mandal, Surat during 10th-12th November, 2001.
- o “39th Annual Conference of Gujarat Ganit Mandal”, has been attended at Rajkot, Surat during 14th-16th November, 2001.

➤ **Session Chaired:**

Chaired Technical Session in ‘International Conference on Recent Trends in Engineering and Material Sciences (ICEMS-2016)’, March 17-19, JNU, Jaipur.

➤ **Expert Lectures Delivered:**

- o “PDE`s arising during fluid flow through porous media”, One week STTP on Applications of fixed point theory & nonlinear analysis for engineering and sciences, June 30-July 04, 2014, SVNIT, Surat.
- o “Series Solution of Differential Equation occurring in oil recovery process. Seminar on “Analysis, Geometry, and Applications, 4th to 6th March 2010, S. P. University, Vallabh Vidyanagar.
- o Delivered an invited talk, “On Counter-Current Imbibition Phenomenon in Banded homogeneous Porous Matrix” in **Mathematics Meet-2008**, March 28-29, 2008, **Gujarat University**, Ahmedabad.
- o **Invited as Resource Faculty** in Orientation Program in Mathematics for **PGTs (Maths)**

at Atomic Energy Center School Kakrapar, Gujarat-394651. Delivered **Two Lectures** as Resource Faculty on 03/05/2006 and 06/05/2006.

- I was appointed as **Member of Board of Examiner & Paper Setter** of **PAPER-704: OPERATION RESEARCH** at **M. Sc. (I.T.) Sem-VII**, in **Veer Narmad South Gujarat University**, Surat-395007.
- **Invited as Resource Faculty** at Atomic Energy Center School Kakrapar, Gujarat-394651. Delivered **One Lecture** as Resource Faculty in Enrichment program of class XI student in Mathematics, on 24/12/2007

➤ **Professional Training Program**

- One week Faculty Orientation Program on “Pedagogy & Research Methodology (PRM-2021)”, June 21-25, 2021, SVNIT, Surat.
- STTP on “Effective teaching learning” September 8-10, 2015, by NITTTR, Bhopal conducted at SVNIT, Surat.
- One week STTP on “Mathematical & optimization modelling with simulation by scientific tools for researcher, engineer and scientist” June 22-26, 2015, SVNIT, Surat.
- One week STTP on “Advanced analytical & numerical techniques for engineers and scientists” March 3-7 2014, SVNIT, Surat.
- One week STTP on Mathematical, Statistical, Operation research based modelling and simulation for researchers, engineers and scientists” Jan 27-31, 2014, SVNIT, Surat.
- Five Days Faculty Development Program on “Integral Education”, 29th July 2013 to 2nd August 2013 organized by Auro University, Surat.
- STTP on “Computational fluid dynamics for engineering & scientists” July 8-12, 2013, SVNIT, Surat,
- Two Days National Workshop on “Developing Soft Skills”, 20th -21st , 2012, AMHD, SVNIT, Surat.
- One Day Lecture Series on “Mathematical Modeling and its Application” 18th Nov 2011, AMHD, SVNIT, Surat.
- Two Days Lecture Series on “Partial Differential Equations and Their Applications” 27th -28th Aug, 2011, AMHD, SVNIT, Surat.
- Short term training program on “Mathematical Applications in Real World Problems” sponsored by AICTE, at SVNIT, Surat-395007 during 14th to 18th December 2009.
- One Week short term training program on “Recent Scientific and Technological Advances in physical Sciences” sponsored by AICTE at SVNIT, Surat-395007 during 29th December 2008-2nd January 2009.
- One Week short term training program on “Advances in Water Resources Engineering” by AICTE at SVNIT, Surat-395007 during 22th -26th December, 2008.
- One Week short term training program on “Applications of Mathematical Sciences and soft computing” by AICTE at SVNIT, Surat-395007 during 8th -12th December, 2008.
- Short Term Training Program on “Application Orientation in Engineering Mathematics & Mathematical Modeling” has been attended during 26th-30th December, 2006 at SVNIT, Surat.
- Short Term Course on “Mathematical Models and Methods in Engineering” has been attended from 5th June to 9th June 2006, at Maulana Azad National Institute of Technology, Bhopal.

➤ **Membership of Professional Societies**

- Life member in Indian Society of Theoretical and Applied Mechanics (**ISTAM**)
- Life member in **GAMS**.

➤ **Extra-Curricular Activities/Achievements**

- Deeply involved in NCC at the time of Graduation studies.
- **NCC B & C** certificates with “**A**” Grade.
- Represented Gujarat State at “**Thal Sainik Camp**” held at Delhi from 28th September to 09th October 1999.
- Attended training selection camps of Republic Day Pared (**RDC**) Camp in 1st Year of B.Sc..
- Selected and Participated in “**All India NCC Girls Trekking Expedition**” held in the Nilgiris, Aravankadu.

Technical Skills:

- Windows, Microsoft Office, MATLAB.

Hobbies

- Reading Novels, Cooking, Gardening.

Languages Known

- English, Hindi, Gujarati.

Declaration: I hereby declare that all the information provided by me above is factual and correct to the best of my knowledge and belief.

Place: Surat

Date: July, 2021

Saroj R. Yadav