

Department of Mathematics

Research Publications

● Prof.(Dr.) S. I. Unhale

Publication of Research Papers:

UGC listed journals	:	10
Peer reviewed journals	:	02
Non-peer reviewed journals	:	05
Conference proceedings	:	03

List of Publication of Research Papers:

- Hayman Thabet, S.D. Kendre and S.I. Unhale; Numerical Analysis of Iterative Fractional Partial Integro-Differential Equations, *Journal of Mathematics*, (2022), 1-14.
- S.I. Unhale and S. D. Kendre; On existence and uniqueness results for iterative mixed integrodifferential equation of fractional order, *J. Appl. Anal.*, 26(2) (2020), 263-272 <https://doi.org/10.1515/jaa-2020-2023>.
- S.D. Kendre and S.I. Unhale; On existence, uniqueness and Ulam's stability results for boundary value problems of fractional iterative integrodifferential equations, *Journal J. Appl. Math. Comput.*, 64 (2020), 503–517, <https://doi.org/10.1007/s12190-020-01366-z>.
- S.I. Unhale and M. A. Joshi; A Statistical Study on Road Accidents in Ghat Section of Mumbai Pune Expressway, *Utkal Historical Research Journal*, 36, 1(III), (2023), 50-53.
- S.I. Unhale and S.D. Kendre; On Existence and Uniqueness results for iterative fractional integrodifferential equation with deviating arguments, *Applied Mathematics E-Notes*, 19(2019), 116-127.
- S.I. Unhale and S.D. Kendre; On Controllability of Mixed Iterative Integrodifferential Equations of Fractional Order, *Malaya Journal of Matematik*, 1 (2019), 679-688.
- S.I. Unhale and S.D. Kendre; Existence and Uniqueness Results for Iterative Volterra Integrodifferential Equation of Fractional Order, *Communications on Applied Nonlinear Analysis*, 25(1) (2018), 81-91.
- S.I. Unhale and S.D. Kendre; Numerical Solution of Nonlinear Fractional Integro-differential Equations by Collocation method, *Malaya Journal of Matematik*, 6(1) (2018), 73-79.
- S.I. Unhale; Numerical Solution of Nonlinear Fractional Integrodifferential Equation by Fractional Power Series Method, *Printing Area*, International Research Journal, Special Issue, 2018, 85-91.

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- Subhash I. Unhale and Sadikali L. Shaikh; Applications of the Sumudu Transform to Groundwater Flow and Solute Transport Modelling, *International Journal of Research and Analytical Reviews*, 5(4) 2018, 554-558.
- S.I. Unhale and N.D. Mokal; An Assessment of Student Project using Fuzzy Logic based on Grading System, *Anugoonj*, (6), 2016-2017, 31-35.
- S.I. Unhale and N.D. Mokal; Evaluation of Faculty Performance by Using Fuzzy Logic in Educational Institutions, *Anugoonj*, (5), 2015-2016, 33-39.
- S.I. Unhale and N.D. Mokal; A New Approach for Fuzzy Traffic Signal Control, *Anugoonj*, (4), 2014-2015, 30-34.
- S.I. Unhale and N.D. Mokal; Fuzzy Logic Control of Washing Machine, *Anugoonj*, (3), 2013-2014, 30-35.
- S.I. Unhale and M.A. Joshi; Fast Food: Need of Trend, *Anugoonj*, (2), 2012-2013, 62-64.
- Unhale S.I. and Chaudhary M.S.; On distributional generalised Laplace transformation', *The Journal of the Indian Academy of Mathematics*, 30 (2) 2008, 403-412.

Publications in Conference Proceedings (03)

- Feedback Management System: Our Initiative
- Planning, Execution and feedback for effective Teaching-Learning process: Our Initiative
- Applications of Differential Equation for corruption & Population growth & decay

Books authored:

Edited book by National publisher	:	10
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List of Books authored:

- Calculus I, Sheth Publishers Pvt. Ltd.
- Calculus II, Sheth Publishers Pvt. Ltd.
- Computer Oriented Statistical techniques, Sheth Publishers Pvt. Ltd.
- Mathematical & Statistical Techniques-I, Sheth Publishers Pvt. Ltd.
- Mathematical & Statistical Techniques-II, Sheth Publishers Pvt. Ltd.
- Calculus II, Sheth Publishers Pvt. Ltd.
- Mathematical & Statistical Techniques, Sem. I, Universal Publishing House
- Mathematical & Statistical Techniques, Sem II, Universal Publishing House
- Business Mathematics, Sheth Publishers Pvt. Ltd.
- Calculus I, Sheth Publishers Pvt. Ltd.

Department of Mathematics

- **Mr. S. L. Khairnar**

Publication of Research Papers:

UGC listed journals	:	–
Peer reviewed journals	:	02
Non-peer reviewed journals	:	–
Conference proceedings	:	–

List of Publication of Research Papers:

- Mr. S.L. Khairnar,; Analysis And Simulation Of A SEIR Model For Covid-19 Virus In Pune, Educreator Research Journal,, (2022).
- Mr. S.L. Khairnar,; Extrapolating data by using polynomials: A case study on Panvel Tahsil Population, Educreator Research Journal,, (2022).

Books authored:

Edited book by National publisher	:	02
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List of Books authored:

Sr. No.	Title of the book	Publisher	ISBN No.	Year of Publication	Level at which recommended
1	Mathematical & Statistical Techniques-I	SHETH PUBLISHERS PVT.LTD	ISSN: 9789389092219	2019	FYBCom
2	Mathematical & Statistical Techniques-II	SHETH PUBLISHERS PVT.LTD	ISSN: 9789389542776	2019	FYBCom

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- **Ms. N. C. Patil**

List of Publication of Research Papers:

- Ms. Neha Patil, Computational evaluation of dominant eigenvalue and its corresponding eigenvector using power method, *Mukt Shabd Journal*, 12(IV), 238-243, 2023
<https://shabdbooks.com/volume-12-issue-4-april-2023/>

- **Mrs. N. R. Gharat**

Publication of Research Papers:

Non-peer reviewed journals	:	06
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List of Publication of Research Papers:

- Mrs. N. R. Gharat , Dr. S. I. Unhale; Profit maximization in a manufacturing factory by using Linear programming, *Anugoonj*, 2022-2023
- Mrs. N. R. Gharat , Dr. S. I. Unhale; Application of Warshall Algorithm for providing shortest path to ambulance during emergency to get to and fro from patients home to hospital, *Anugoonj*, 2021-2022
- N.D. Mokal and S.I. Unhale; An Assessment of Student Project using Fuzzy Logic based on Grading System, *Anugoonj*, (6), 2016-2017, 31-35.
- N.D. Mokal and S.I. Unhale; Evaluation of Faculty Performance by Using Fuzzy Logic in Educational Institutions, *Anugoonj*, (5), 2015-2016, 33-39.
- S.I. Unhale and N.D. Mokal; A New Approach for Fuzzy Traffic Signal Control, *Anugoonj*, (4), 2014-2015, 30-34.
- S.I. Unhale and N.D. Mokal; Fuzzy Logic Control of Washing Machine, *Anugoonj*, (3), 2013-2014, 30-35.

Books authored:

Edited book by National publisher	:	02
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List of Books authored:

- Calculus I, Sheth Publishers Pvt. Ltd.
- Calculus II, Sheth Publishers Pvt. Ltd.

Department of Mathematics

- Mrs. M. A. Joshi

Publication of Research Papers:

UGC listed journals	:	2
Peer reviewed journals	:	
Non-peer reviewed journals	:	
Conference proceedings	:	

List of Publication of Research Papers:

- S.I. Unhale and M. A. Joshi; A Statistical Study on Road Accidents in Ghat Section of Mumbai Pune Expressway, Utkal Historical Research Journal, 36, 1(III), (2023), 50-53.
- S.I. Unhale and M.A. Joshi; Fast Food: Need of Trend, *Anugoonj*, (2), 2012-2013, 62-64.

Publications in Conference Proceedings (03)

Books authored:

Edited book by National publisher	:	01
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List of Books authored:

- Computer Oriented Statistical techniques, Sheth Publishers Pvt. Ltd.