



Centre/School/Special Centre |  
School of Mathematical and Computational Sciences |  
Department of Mathematics |  
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• **Name: Dr. Uma Devi Patel**

• **Area of Interest/Specialization:**

Nonlinear functional Analysis, Fixed Point Theory and its Applications, Fuzzy algebra, Applied area of Fuzzy mathematics.

• **Qualifications:**

M.Sc.(Mathematics) in 2007, M.Phil.(Mathematics) in 2008, Ph.D.(Mathematics) in 2016 from Guru Ghasidas Vishwavidyalaya, Bilaspur

• **Awards and Honours:**

M.Sc. Gold Medalist (Mathematics), Gold Medal (Science Group), M.Phil. first rank in University, 10th Rank in B.Sc. (Guru Ghasidas University Merit List)

• **Teaching Experience:**

Worked as Lecturer, two and half years in Institute of Technology, Korba, Assistant Professor, Department of Mathematics, GGV, Bilaspur from July 2018 to till date.

• **Research Guided:**

Ph. D. Research Guidance- 01 (Pursuing)

• **Peer-Reviewed Publications (SCI / SCIE / Scopus / Web of Science / UGC care listed)**

- (1) Uma Devi Patel, Stojan Radenović, Suzuki-type fuzzy contractive inequalities in 1-Z-complete fuzzy metric-like spaces with an application, *Nonlinear Analysis: Modelling and Control* 28 (2023), 1-17. **Web of science, Scopus, Impact factor-2.217.**
- (2) Uma Devi Patel, Vesna Todorčević, Slobodan Radojević and Stojan Radenović, Best Proximity Point for  $\Gamma_\tau F$ -Fuzzy Proximal Contraction, *Axioms*, 2023, Volume 12, Issue 2, 165. **SCIE, Impact factor-1.824.**
- (3) P. P. Murthy, Daina Dolicanin-Dekic, Uma Devi Patel and Pushplata Sahu, Best proximity point for generalized proximal contraction in a complete metric space, *Filomat* 37.16 (2023), 5181-5193. **SCI, Impact factor- 0.999.**
- (4) Uma Devi Patel, Stojan Radenović, An Application to Nonlinear Fractional Differential Equation via  $\alpha$ - $\Gamma F$  -Fuzzy Contractive Mappings in a Fuzzy Metric Space. *Mathematics*, 2022, Volume 10, Issue 16, 2831. **SCIE, Impact factor-2.592.**

- (5) P. P. Murthy, Kenan Tas and Uma Devi Patel, Common fixed point theorems for generalized  $(\phi, \psi)$ - weak contraction condition in complete metric spaces, Journal of Inequality and Applications. (A Springer Open Journal) (2015:139), 1-14. **SCI, Impact factor- 2.021.**
- (6) P. P. Murthy and Uma Devi Patel, Common fixed point theorems of Gregus type  $(\psi_1, \psi_2, \phi)$ - weak contraction for R-weakly commuting mappings in 2-metric spaces, Journal of Operators, Vol 2015, Article ID 195731. 9 pages 2015. doi:10.1155/2015/195371. (ISSN:2314-5064-Print); 2314-5072(online). <http://www.hindawi.com/journals/joper/>.
- (7) P. P. Murthy and Uma Devi Patel, n-tuples coincidence point theorems for probabilistic  $\Psi$ -contractions in Menger Spaces, International Journal of Computational Mathematics (2016) Hindawi Publication. (ISSN: 2356-797C-Print); 2314-856X (online). <http://www.hindawi.com/journals/ijcm/>
- (8) P. P. Murthy and Uma Devi Patel, Common fixed point theorems using  $(\psi_1, \psi_2, \phi)$  - weakly contraction in partial ordered metric spaces, Facta Universitatis (Nis) Ser.Math. Inform. Vol. 30, No, 4, 445-464, 2015.
- (9) P. P. Murthy and Uma Devi Patel, Common fixed point theorems satisfying a new type of Weak contraction condition on a Saks Spaces, Advances in Fixed Point Theory, 7 (1),118-143, 2017.
- (10) P. P. Murthy, Laxmi Narayan Mishra and Uma Devi Patel, n-tupled fixed point theorems for weak-contraction in partially ordered complete G- metric spaces, New Trends in Mathematical Sciences (NTMSCI) 3(4), 50-75, 2015.
- (11) P. P. Murthy, V. Narayan Mishra and Uma Devi Patel, Common fixed point theorems for generalized quadratic  $(\psi_1, \psi_2, \phi)$  -weak contraction in complete metric spaces, Appl. Math. Inf. Sci. Lett.,7, 1-8 , 2016.

• **Administrative Responsibilities University level**

- (1) Member- Student Greivance Redressal Committee (SGRC)
- (2) Member- Central Security Section, GGV
- (3) Assistant Exam Centre Superintendent UTD Building

• **Administrative Responsibilities Departmental Level**

- (1) Departmental Coordinator- Regarding Awareness students activities throughs Samarth portal
- (2) Member- Departmental Research Committee (DRC)
- (3) Member- Departmental Admission Committee (UG/PG/PHD)
- (4) Coordinator- Departmental Alumni Association

- (5) Member- Time-Table Committee
- (6) Member-Discipline Committee and Cultural Committee
- (7) Co-coordinator- Department level data collection for AQAR
- (8) Coordinator- NAAC Criteria-IV
- (9) Coordinator AEC/SEC/Generic Paper

- **Paper Presented in National/ International Conferences**

- (1) "Generalizations of the first contraction principle in k-fuzzy metric space" in the 2nd International Conference on Recent Trends in Applied Sciences and Computing Engineering (RTASCE - 2023) organized by VIT Bhopal University in association with National Institute of Technology, Warangal during July 7-9, 2023.
- (2) "Best proximity point theorms using fuzzy Z-proximal contractions in a strong fuzzy metric space with an application" in the 2nd International Conference on Recent Trends in Applied Sciences and Computing Engineering (RTASCE - 2023) organized by VIT Bhopal University in association with National Institute of Technology, Warangal.
- (3) "Coupled fixed point theorems for nonlinear contractions in Kaleva-sikkala's type fuzzy metric spaces" CMSA-2018, International conferences on mathematical sciences and applications, GGV, Bilaspur, Feb 23-25, 2018.
- (4) "C-class Contraction condition for set valued mappings" CMSA-2018, International conferences on mathematical sciences and applications, GGV, Bilaspur.
- (5) "Fixed point theorems for generalized  $(\phi, \psi)$ -weak contraction maps in Saks space" National seminar on Advances in Nonlinear Analysis and Optimization Pt. Ravishankar Shukla University, Raipur, Feb 15-17, 2014.

- **External Responsibilities**

- (1) Observer-CTET Exam

- **Reviewer of the Journal**

- (1) Nonlinear Analysis Modelling and Control  
(Web of Science/Scopus Imapact Factor-2.17)