

# Department of Mathematics

## Publication

**Dr. Shabnam Khan**

### **PUBLISHED PAPERS:**

1. Paper published entitled “Computation of optimal solution of certain problem through fixed point algorithm” in International Journal of Management Technology and Engineering, Volume XII, Issue IX, September 2022, ISSN No. 2249-7455
2. “Existence and Characterization of Fixed Point in Metric Spaces” in International Journal of Management, Technology and Engineering, Vol. IX , Issue III March 2019 (ISSN no. 2249-7455.)
3. Computation of Optimal Solution of Certain Linear Form of Problem through Fixed Point Algorithm – Research Fronts Vol. VI 2016 , ISSN 2250-2653.
4. Nature Of Equilibrium points in Certain Symmetric Jnanbha University Victoria B.C. CNADA.Vol. 23, 1993.
5. Existence of Common Fixed Points Compatible Maps -IJCRT , Vol.2,No.1 (2016) ISSN 2394-5745 (Special Issue)
6. On Computation of triangulation with Continuous Refinement of Grid Size Calcutta Mathematical Society. Calcutta. Bull. Cal. Math. Soc., 86, 279-290 (1994).
7. Error Bound in Computing Kakutani Fixed Points Mathematical Journal Ranchi University. Ranchi , Vol. 20, 1989 (Issued September 1996)

### **BOOK CHAPTERS:**

1. Book Chapter “Compatible Mappings of Type (A) and Common Fixed Points” published in Role of Applied Sciences in Social Implications, Volume D ISBN 78-81-959977-0-1

## **Dr. K.K. Dewangan**

### **PUBLISHED PAPERS:**

- 1. Paper published entitled “Fixed Point Approximation of Modified k-iteration Method in CAT(k) space”, Journal of Mathematical Extension, 17 (1) (2023), 1-13.**
- 2. Paper published entitled “Computation of optimal solution of certain problem through fixed point algorithm” in International Journal of Management Technology and Engineering, Volume XII, Issue IX, September 2022, ISSN No. 2249-7455**
- 3. Fixed Point Theorems for modified F-contraction Mappings, IJMA 12(5) (2021), 17-22.**

### **BOOK CHAPTERS:**

- 1) Book Chapter published in Role of Applied Sciences in Social Implications, Volume D ISBN 78-81-959977-0-1**

## **Dr. Hemant Kumar Sao**

### **PUBLISHED PAPERS:**

- 1. H L Manker, Hemant Kumar Saw and Iti Sao, Reliability analysis of a system using semi Markov process, International Journal of Statistics and Applied Mathematics (Web of Science) 2024; 9(4): 145-151 July 2024 ISSN: 2456-1452.**
- 2. Hemant Kumar Saw, Rakesh Tiwari and Shruti Shukla, Profit analysis of a two-unit similar cold standby system with endurance time and preventive maintenance, International Journal of Statistics and Applied Mathematics 2024; 9(4): 16-21, May 2024, ISSN: 2456-1452**
- 3. Hemant Kumar Saw, Iti Sao, Prachi Singh, Reliability Modeling and Analysis of an Industrial System with one Main Unit with Two Subunit, International Journal of Science and Research (IJSR) ISSN: 2319-7064, Volume 12 Issue 12, December 2023.**
- 4. Hemant Kumar Saw, Shruti Shukla, Rakesh Tiwari, Stochastic Modeling And Analysis of A Repairable Single Unit Systems, International Journal Of Engineering And Computer Science Volume 13 Issue 01 January 2024, Page No. 25991-26000.**
- 5. Hemant Kumar Saw, Iti Sao and Prachi Singh, Analysis of Hulling System in Rice Mill Plant With Variable Demand, International Journal Of Engineering And Computer Science Volume 13 Issue 02 February 2024, Page No. 26031-26038**
- 6. "Reliability Modeling of a system with one main unit and two associate units along with sub unit" in Journal of Communication in Mathematics and Applications, Vol.13, No. 1, pp 281-293, 2022.**
- 7. Reliability Modeling of a System with one main unit and two associate unit along with sub-unit, Communications in Mathematics and Applications, 13 (1) (2021)**
- 8. "Economic and Performance Evaluation of Two Unit Cold Standby System with Hardware Failure and Human Error" *Intl. Journal of Applied mathematical Analysis & Application. ISSN 0973-3868 (2017) Jan- June 2017, UGC Sr. No. 16380 in UGC Notification No.F.1-2/2016 (PS) Amendment-10<sup>th</sup> January 2017.***
- 9. Reliability, Modelling and Analysis of Single unit system with Environmental Failure and PM at MOT. *Bull. Cal. Math. Soc. ISSN 0008-659, 107, (3) 193–204 (2015). UGC Sr. No. 5913 in UGC Reliability Notification No.F.1-2/2016 (PS) Amendments-10<sup>th</sup> January, 2017.***
- 10. Economic and Performance evaluation of a Stochastic Model with Hardware failure and Human error, *Bull. Cal. Math. Soc., ISSN 0008-659, 107, (5) 411-420. (2015). UGC Sr. No. 5913 in UGC Notification No.F.1-2/2016 (PS) Amendment-10<sup>th</sup> January 2017.***

11. Reliability Availability Cost analysis (RAC) of Three Unit System. *Journal of the Calcutta Mathematical Society* 12(1) 47-64 (2016)
12. Economic and Performance Evaluation of Two Unit Cold Standby System with Hardware Failure and Human Error, accepted for publication in *Intl. Journal of Applied mathematical Analysis & Application*. ISSN 0973-3868 (2017) Jan- June 2017, UGC Sr. No. 16380 in UGC Notification No.F.1-2/2016 (PS) Amendment-10<sup>th</sup> January 2017.

#### **BOOK CHAPTERS:**

1. “Stochastic Reliability Modeling of an Industrial System with One Main Unit with Two Sub Unit” in “Role of Applied Sciences in Social Implications”, Volume D: Mathematics & Computer Science, Chapter 5, page no 37-44, 2023, ISBN No. 78-81-959977-0-1 Publisher: Probecell Press, Bhilai, Chhattisgarh
2. “Stochastic Reliability Analysis of Single Unit System with Patience Time” in “Role of Applied Sciences in Social Implications”, Volume D: Mathematics & Computer Science, Chapter 17, page no 136-147, 2023, ISBN No. 78-81-959977-0-1 Publisher: Probecell Press, Bhilai, Chhattisgarh

#### **BOOK:**

1. Book entitled “Role of Applied Sciences in Social Implications”, Volume A, B, C, D and E, ISBN No. 78-81-959977-0-1 Publisher: Probecell Press, Bhilai, Chhattisgarh (5 Edited Book)
2. “Reliability Engineering” published by LAP LAMBERT Academy Publisher, Republic of Moldova, Europe.

## **Dr. Kavita Sakure**

### **PUBLISHED PAPERS:**

- 1. Kavita Sakure and Samir Dashputre, Qualitative Behaviour of Solutions of Hybrid Fractional Integral Equation with Linear Perturbation of Second Kind in Banach Space, Malaya Journal of Matematik 6 (3) (2018), 506-513.**
- 2. Kavita Sakure, Existence of Solution of Nonlinear Volterra-Hammerstein-Fredholm Integral Equation in Banach Algebra, Asian Journal of Mathematics and Computer Research, 24 (2) (2018), 96-103.**
- 3. Kavita Sakure and Samir Dashputre, Nonlinear Functional Integral Equation : Existence, Global Attractivity and Positivity of Solutions, Malaya Journal of Matematik, 8(2) (2020), 389- 396.**
- 4. Samir Dashputre, Padmavati and Kavita Sakure, On Approximation of Fixed Point in Busemann Space via Generalized Picard Normal S-iteration Process, Malaya Journal of Matematik 8(3) (2020), 1055-1062.**
- 5. Samir Dashputre, Padmavati and Kavita Sakure, Strong and  $(\Delta)$ -Convergence Results for Generalized Nonexpansive Mapping in Hyperbolic Space, Communications in Mathematics and Applications, 11(3) (2020), 389-401.**
- 6. Samir Dashputre, Padmavati and Kavita Sakure, Fixed Point Approximation of Countably Infinite Family of Nonexpansive Mappings, South East Asian Journal of Mathematics and Mathematical Sciences, 17 (1) (2021), 361-382.**
- 7. Samir Dashputre, Padmavati and Kavita Sakure, Convergence Results for Proximal Point Algorithm in Complete CAT(0) Space for Multivalued Mappings, Journal of Indonesian Mathematical Society, 27 (1) (2021), 29-47.**
- 8. Samir Dashputre, Padmavati and Kavita Sakure, Inertial Picard Normal S-iteration Process, Nonlinear Functional Analysis and Applications, 26 (5) (2021), 995-1009.**

9. Jong Kyu Kim, Samir Dashputre, Padmavati and Kavita Sakure, Generalized  $\alpha$ -nonexpansive mappings in Hyperbolic Spaces, *Nonlinear Functional Analysis and Applications*, 27(3) (2022), 449-469.
10. Jong Kyu Kim, Samir Dashputre, Padmavati and Kavita Sakure, Convergence results for generalized nonexpansive multivalued mapping in hyperbolic space via SP iteration process, *Journal of Nonlinear and Convex Analysis*, 22 (4) (2021), 839-854
11. Samir Dashputre, Kavita Sakure and Dewangan K.K., Fixed Point Approximation of Modified k-iteration Method in CAT(k) space, *Journal of Mathematical Extension*, 17 (1) (2023), 1-13.
12. Samir Dashputre, Padmavati and Kavita Sakure, Convergence results for Picard Normal S-iterative algorithm with applications, *Palestine Journal of Mathematics*, 12 (Special Issue IV) (2023), 73-85.
13. Samir Dashputre and Kavita Sakure, Monotone Generalized  $(\alpha, \beta)$ -nonexpansive Mappings in Ordered Hyperbolic Metric Spaces, *Journal of Advanced Mathematical Studies*, 17(2) (2024), 250-263.
14. Samir Dashputre and Kavita Sakure, Convergence of Monotone Generalized  $\alpha$ -nonexpansive Mappings in Ordered Hyperbolic Metric Spaces, *Sahand Communications in Mathematical Analysis*, 22 (1) (2024), 39-57

#### BOOK CHAPTERS:

1. Kavita Sakure, Existence of Solution of Nonlinear Functional Integral Equation via Measure of Non-compactness, *Theory and Applications of Mathematical Science*, Vol. 12, Chapter 8, 115-125 (2020), Book Publisher International, West Bengal, India.  
<https://stm1.bookpi.org/index.php/tams-v2/article/view/1027>  
 ISBN 978-93-89816-38-9 (Print) ISBN 978-93-89816-39-6 (eBook)  
 DOI: [10.9734/bpi/tams/v2](https://doi.org/10.9734/bpi/tams/v2)
2. Samir Dashputre, Padmavati, Kavita Sakure, Iterative Construction of Fixed Point of Mean Nonexpansive Mappings in Hyperbolic Spaces, *Role of Applied Sciences in Social Implications*, Volume D: Mathematics & Computer Science, Chapter 7, Page 51-58 (2023), ISBN No. 78-81-959977-0-1 Publisher: Probecell Press, Bhilai, Chhattisgarh

## **Book**

- 1. Editor, Role of Applied Sciences in Social Implications, Volume D: Mathematics & Computer Science, Chapter 7, Page 51-58 (2023), ISBN No. 78-81-959977-0-1 Publisher: Probecell Press, Bhilai, Chhattisgarh**

## **Mr. Ravi Sonkar**

### **PUBLISHED PAPERS:**

- 1. Paper published entitled “Application of Laplace Transform on Solution of Fractional Defferential Equation”, Journal of Computer and Mathematical Science, Vol.9(5),478-484 may 2018, ISSN No. 0976-5727(print) ISSN No.2319-8133(online).**
- 2. Paper published entitled “Importance of Organic Forming in Agriculture Industry” in INFOKARA RESEARCH An UGC-CARE Approved Group 2 Journal, Volume XII, Issue X, October 2023, ISSN No. 1021-9056.**

### **BOOK CHAPTERS:**

- 1. Book Chapter published in Role of Applied Sciences in Social Implications, Volume D ISBN 78-81-959977-0-1**

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