

**1. Details of the Teacher/ Academic:**

<b>Name:</b>	Dr. TARUNA KUMARI
<b>Date of Birth</b>	13.08.1986
<b>Date of Joining in IGNOU:</b>	10.08.2021
<b>Current Designation:</b>	Associate Professor of Statistics
<b>Pay Scale as on date:</b>	Academic Level 13A of 7 <sup>th</sup> Central Pay Commission
<b>Highest Educational Qualifications &amp; Discipline</b>	Ph.D. and M.Phil. in Statistics & Statistics

**2. Honour/Award/Fellowship/membership of Professional body/ Statutory body (internal/ external) received by the Teacher/ Academic:**

<b>Name of the recipient</b>	<b>Honour /Award/ Fellowship name/ membership of Professional body/ Statutory body</b>	<b>Agency name /Name of statutory body/ institution/ Apex body</b>	<b>Period</b>
Taruna Kumari	Member of School Board, School of Sciences	IGNOU, New Delhi	12 Dec 2024 - 11 Dec 2026

**3. Books/Book Chapter:**

- Co-author/co-editor if any, title, place of publication, publisher, Year, page (no) s, ISBN No

<b>Sl. No .</b>	<b>Name of Author1/ Editor 1, &amp; Co- author (s) / Co-editor (s) (if any)</b>	<b>Title of chapter/book</b>	<b>Place of publication</b>	<b>Publisher</b>	<b>Year</b>	<b>Total Pages</b>	<b>ISBN No.</b>
1.	Taruna Kumari	Introduction to R	India	IGNOU	2024	20	978-93-5568-938-2
2.	Taruna Kumari	Nitty-Gritty of R	India	IGNOU	2024	40	978-93-5568-938-2
3.	Taruna Kumari	Membership Testing, Coercion and Lists in R	India	IGNOU	2024	32	978-93-5568-938-2
4.	Taruna Kumari	Data Frames, Reading and Writing in R	India	IGNOU	2024	40	978-93-5568-938-2
5.	Taruna Kumari	Graphical Representation of Data with R	India	IGNOU	2024	38	978-93-5568-938-2
6.	Taruna Kumari	Functions in R	India	IGNOU	2024	20	978-93-5568-938-2
7.	Taruna	Control-Flow	India	IGNOU	2024	28	978-93-5568-

	Kumari	Constructs of R					938-2
8.	Taruna Kumari	Apply Family in R	India	IGNOU	2024	24	978-93-5568-938-2
9.	Taruna Kumari	Descriptive Statistics and Correlation with R	India	IGNOU	2024	36	978-93-5568-938-2
10.	Taruna Kumari	Graphical Presentation of some Functions Using R	India	IGNOU	2023	18	978-93-5568-897-2
11.	Taruna Kumari	Integration and Differentiation Using R	India	IGNOU	2023	16	978-93-5568-897-2
12.	Taruna Kumari	Sample Space and Discrete Probability Distributions Using R	India	IGNOU	2023	26	978-93-5568-897-2
13.	Taruna Kumari	Continuous Probability Distributions Using R	India	IGNOU	2023	18	978-93-5568-897-2
14.	Taruna Kumari	Simple Random Sampling Using R	India	IGNOU	2023	18	978-93-5568-897-2
15.	Taruna Kumari	Stratified Random Sampling Using R	India	IGNOU	2023	18	978-93-5568-897-2
16.	Taruna Kumari	Systematic Sampling Using R	India	IGNOU	2023	20	978-93-5568-897-2
17.	Taruna Kumari	Analysis of Completely Randomised Design Using R	India	IGNOU	2023	16	978-93-5568-897-2
18.	Taruna Kumari	Analysis of Randomised Block Design Using R	India	IGNOU	2023	14	978-93-5568-897-2
19.	Taruna Kumari	Analysis of Latin Square Design Using R	India	IGNOU	2023	16	978-93-5568-897-2
20.	Taruna Kumari	Analysis of RBD and LSD with one Missing value Using R	India	IGNOU	2023	20	978-93-5568-897-2
21.	Taruna Kumari	Control Charts for Mean and Range Using R	India	IGNOU	2023	32	978-93-5568-897-2
22.	Taruna Kumari	Control Charts for Mean and Standard Deviation Using R	India	IGNOU	2023	26	978-93-5568-897-2
23.	Taruna Kumari	Control Chart for Proportion of Defectives Using R	India	IGNOU	2023	22	978-93-5568-897-2
24.	Taruna Kumari	Control Chart for Number of Defectives Using R	India	IGNOU	2023	14	978-93-5568-897-2
25.	Taruna Kumari	Control Chart for Number of Defects Using R	India	IGNOU	2023	12	978-93-5568-897-2
26.	Taruna Kumari	Operating Characteristic and	India	IGNOU	2023	16	978-93-5568-897-2

		Average Outgoing Quality Curves Using R					
27.	Taruna Kumari	Estimation of Trend by Curve Fitting Using R	India	IGNOU	2024	22	978-93-5568-897-2
28.	Taruna Kumari	Smoothing of Time Series Using R	India	IGNOU	2023	20	978-93-5568-897-2
29.	Taruna Kumari	Seasonal Component Analysis Using R	India	IGNOU	2023	24	978-93-5568-897-2
30.	Taruna Kumari	Estimation of Reliability Using R	India	IGNOU	2023	10	978-93-5568-897-2
31.	Taruna Kumari	Introduction to Multivariate Analysis and Some Matrix Algebra	India	IGNOU	2024	22	<a href="https://egyankosh.ac.in/handle/123456789/102941">https://egyankosh.ac.in/handle/123456789/102941</a>
32.	Taruna Kumari	Linear Algebra for Multivariate Analysis	India	IGNOU	2024	38	<a href="https://egyankosh.ac.in/handle/123456789/102941">https://egyankosh.ac.in/handle/123456789/102941</a>
33.	Taruna Kumari	Aspects of Multivariate Distributions	India	IGNOU	2024	28	<a href="https://egyankosh.ac.in/handle/123456789/102941">https://egyankosh.ac.in/handle/123456789/102941</a>
34.	Anupam Pathak and Taruna Kumari	Introduction to Multivariate Normal Distribution	India	IGNOU	2024	24	<a href="https://egyankosh.ac.in/handle/123456789/102941">https://egyankosh.ac.in/handle/123456789/102941</a>
35.	Anupam Pathak and Taruna Kumari	Independence and Transformation of Multivariate Normal Vectors	India	IGNOU	2024	18	<a href="https://egyankosh.ac.in/handle/123456789/102941">https://egyankosh.ac.in/handle/123456789/102941</a>
36.	Taruna Kumari	Additional Properties of Multivariate Normal Distribution	India	IGNOU	2024	18	<a href="https://egyankosh.ac.in/handle/123456789/102941">https://egyankosh.ac.in/handle/123456789/102941</a>
37.	Taruna Kumari	Estimation of the Parameters of Multivariate Normal Distribution	India	IGNOU	2024	20	<a href="https://egyankosh.ac.in/handle/123456789/102941">https://egyankosh.ac.in/handle/123456789/102941</a>
38.	Taruna Kumari	Multivariate Central Limit Theorem and Multiple Correlation Coefficient	India	IGNOU	2024	23	<a href="https://egyankosh.ac.in/handle/123456789/102941">https://egyankosh.ac.in/handle/123456789/102941</a>
39.	Taruna Kumari	Principal Component Analysis	India	IGNOU	2024	22	<a href="https://egyankosh.ac.in/handle/123456789/102941">https://egyankosh.ac.in/handle/123456789/102941</a>
40.	Anupam Pathak and Taruna	Factor Analysis	India	IGNOU	2024	20	<a href="https://egyankosh.ac.in/handle/123456789/102941">https://egyankosh.ac.in/handle/123456789/102941</a>

	Kumari						<a href="#">102941</a>
41.	Taruna Kumari	Canonical Correlation Analysis	India	IGNOU	2024	22	<a href="https://egyankosh.ac.in/handle/123456789/102941">https://egyankosh.ac.in/handle/123456789/102941</a>
42.	Taruna Kumari	Clustering	India	IGNOU	2024	28	<a href="https://egyankosh.ac.in/handle/123456789/102941">https://egyankosh.ac.in/handle/123456789/102941</a>
43.	Taruna Kumari	Discriminant and Classification Analysis	India	IGNOU	2024	22	<a href="https://egyankosh.ac.in/handle/123456789/102941">https://egyankosh.ac.in/handle/123456789/102941</a>
44.	Taruna Kumari and Anupam Pathak	Estimation and Testing Procedures for the Reliability Functions of Exponentiated Generalized Family of Distributions and a Characterization Based on Records. <a href="https://doi.org/10.1007/978-3-030-78919-0_13">https://doi.org/10.1007/978-3-030-78919-0_13</a>	In Optimizati on Models in Software Reliability (p p. 283-321).	Springer	2022	38	978-3-030-78918-3, 978-3-030-78919-0
45.	Taruna Kumari and Anupam Pathak	Estimation of Reliability in Multicomponent Stress–Strength Model for Generalized Half-Logistic Distribution. <a href="https://doi.org/10.1007/978-981-99-5085-0_10">https://doi.org/10.1007/978-981-99-5085-0_10</a>	Advances in IoT and Security with Computational Intelligence. ICAISA 2023. Lecture Notes in Networks and Systems, vol 755. (International publisher)	Springer, Singapore	2023	10	978-981-99-5084-3

#### 4. Research Articles/Publications:

Sl. No.	Author/ Co-author (if any)	Title	Name of Journal	Volume	page no. (s)	Year	ISSN No
1.	Anupam Pathak and Taruna Kumari	Statistical Inferences on Multicomponent Reliability for PRHR Family of Distributions Based on Records.	Journal of the Indian Society for Probability and Statistics.	<a href="https://doi.org/10.1007/s41096-024-00224-6">https://doi.org/10.1007/s41096-024-00224-6</a>	-	2024	2364-9569

2.	Taruna Kumari and Anupam Pathak	Efficient estimation of the reliability functions in a multicomponent stress-strength set-up for a generalized family of distributions under progressive type II censoring.	Quality and Reliability Engineering International	<a href="https://doi.org/10.1002/qre.3547">https://doi.org/10.1002/qre.3547</a>	-	2024	0748-8017
3.	Anupam Pathak, Anoop Chaturvedi and Taruna Kumari	Estimation of Reliability in Multicomponent Set-up when Stress and Strength are Non-identical.	Journal of Statistical Theory and Applications	22	213-233	2023	2214-1766
4.	Taruna Kumari, Anupam Pathak, Sanjeev K. Tomer and Bhagwati Devi	A Numerical Study on Robustness of Generalized Half Logistic Distribution under Entropy Loss.	International Journal of Statistics and Reliability Engineering	9(3)	381-397.	2022	2350-0174
5.	Simran Takkar, Bhawna Tyagi, Naveen Kumar, Taruna Kumari, Khushboo Iqbal, Ajit Varma, Indu Shekhar Thakur, Arti Mishra	Biodegradation of methyl red dye by a novel actinobacterium Zhihengliuella sp. ISTPL4: Kinetic studies, isotherm and biodegradation pathway.	Environmental Technology & Innovation	26	1023-48	2022	2352-1864
6.	Arti Mishra, Juhi Gupta, Taruna Kumari, Ruchita Pal, I.S. Thakur	Unravelling the attributes of novel cyanobacteria Jacksonville sp. ISTCYN1 by draft genome sequencing.	Bioresource Technology	337	1254-73	2021	0960-8524
7.	Ajit Chaturvedi, Taruna Kumari & Vijay Kumar	On the Estimation of Parameters and Reliability functions of a New Two-Parameter Lifetime	STATISTICA	3	201-232	2020	1973-2201

	Pandey	Distribution based on type II censoring.					
8.	Ajit Chaturvedi and Taruna Kumari	Estimation and Testing Procedures of the Reliability Functions of Generalized Inverted Scale Family of Distributions	Statistics-A Journal of Theoretical and Applied Statistics	53(1)	148-176	2019	0233-1888 (P) 1029-4910 (O)
9.	Taruna Kumari, Ajit Chaturvedi and Anupam Pathak	Estimation and Testing Procedures for the Reliability Functions of Kumaraswamy-G Distributions and a Characterization based on Records.	Journal of Statistical Theory and Practice.	13:1		2019	1559-8608 (P) 1559-8616 (O)
10.	Taruna Kumari & Anupam Pathak	On the Comparison of Classical and Bayesian Methods of Estimation of Reliability in Multicomponent Stress-Strength Model for a Proportional Hazard Rate Model.	American Journal of Applied Mathematics and Statistics	7(4)	152-160	2019	2328-7306
11.	Ajit Chaturvedi and Taruna Kumari	Robust Bayesian analysis of generalized inverted family of distributions.	Communications in Statistics-Simulation and Computation	48(8)	2244-2268	2019	0361-0918 (P) 1532-4141 (O)
12.	Ajit Chaturvedi and Taruna Kumari	Estimation and comparison of the stress-strength models with more than two states under Weibull distribution and type II censoring scheme.	Communications in Statistics - Theory and Methods	48(3)	537-548	2019	0361-926 (P) 1532-415X (O)
13.	Ajit Chaturvedi, Taruna Kumari & Narendra Kumar	Numerical study of robust Bayesian analysis of generalized inverted family of distributions based	Communications in Statistics-Simulation and Computation	50(11)	3207-3240	2021	0361-0918 (P) 1532-4141 (O)

		on progressive type II right censoring.					
14.	Ajit Chaturvedi, Taruna Kumari & Narendra Kumar	Bayesian Estimation Procedures for Generalized Inverted Scale Family of Distributions based on Progressive Censoring.	Far East Journal of Theoretical Statistics	56(2)	93-124	2019	0972-0863
15.	Arti Mishra, Rashmi Rathour, Rashmi Singh, Taruna Kumari & Indu Shekhar Thakur	Degradation and detoxification of phenanthrene by actinobacterium Zhihengliuella sp. ISTPL4.	Environmental Science and Pollution Research	27	2725 6-2726 7	2019	0944-1344 (P) 1614-7499 (O)
16.	Taruna Kumari and Bhupender kumar	High-mobility group box 1 protein (HMGB1) gene polymorphisms and cancer susceptibility: A comprehensive meta-analysis.	Clinica Chimica Acta	483	170-182	2018	0009-8981
17.	Taruna Kumari, Meenakshi Vachher, Savita Bansal, Rameshwar N.K. Bamezai and Bhupender Kumar	Meta-analysis of mitochondrial T16189C polymorphism for cancer and Type 2 diabetes risk.	Clinica Chimica Acta	482	136-143	2018	0009-8981
18.	Rashmi Rathor, Juhi Gupta, Bhawna Tyagi, Taruna Kumari, Indu Shekhar Thakur	Biodegradation of pyrene in soil microcosm by Shewanella sp. ISTPL2, a psychrophilic, alkalophilic and halophilic bacterium.	Bioresource Technology Reports	4	129-136	2018	2589-014X

19.	Ajit Chaturvedi and Taruna Kumari	Robust Bayesian Analysis of Generalized Half Logistic Distribution.	Statistics, Optimization & Information Computing	5	158–178	2017	2310-5070
20.	Ajit Chaturvedi and Taruna Kumari	Estimation and Testing Procedures for the Reliability Functions of a General Class of Distributions.	Communications in Statistics - Theory and Methods	46(22)	11370-11382	2017	0361-926 (P), 1532-415X (O)
21.	Ajit Chaturvedi and Taruna Kumari	Estimation and testing procedures for the reliability functions of a family of lifetime distributions.	InterStat	<a href="http://interstat.statjournals.net/INDEX/Apr15.html">http://interstat.statjournals.net/INDEX/Apr15.html</a>		2015	ISSN 1941-689X
22.	Taruna Kumari and Anupam Pathak	Relations for moments of generalized order statistics from Chen distribution and its characterization.	Journal of Combinatorics Information and System Sciences	39	49-56	2014	0250-9628
23.	Taruna Kumari and Anupam Pathak	Conditional expectation of certain distributions of dual generalized order statistics.	International Journal of Mathematical Analysis	8(3)	141-148	2014	1312-8876
24.	Taruna Kumari and Anupam Pathak	Recurrence Relations for Single and Product Moments of Generalized Order Statistics from Generalized Power Weibull Distribution and its Characterization.	International Journal of Scientific & Engineering Research	5(1)	1914-1917	2014	2229-5518
25.	Jagdish Saran and Taruna Kumari	Recurrence relations for marginal and joint moment generating functions of upper k-record values from Gompertz distribution	ProbStat Forum	6	96-106	2013	0974-3235



**5. Policy Documents Reports/ Mimeos:**

Sl. No.	Title	Institution/ Agency	Year
-	-	-	-

**6. MOOCs/ eSLMs/ eModules developed:**

Sl. No.	Author/ Co- author (if any)	Title	Credits	Level	Host Portal: (SWAYAM/ NPTEL/ NMEICT/ ePG Pathshala/ Any Other)	Year	Weblink
-	-	-	-	-	-	-	-

**7. Presentation/Invited talk/Chair in National or International Seminar/Conference/ Workshops (Please do not mention if it is only participation without presentation)**

Sl. No.	Author/ Co author (if any)	Title of presentation, /Talk/Lecture	Name Organizing institute	Conference	City	Date and Year
1.	Taruna Kumari	On the estimation of parameters and Reliability functions of a new two-parameter lifetime distribution based on type II censoring.	SGT University, Gurugram, Haryana, India	International Conference on "Recent Advances and Innovations in Biological and Applied Sciences (RAIBAS 2022)	International	14-06-2022 to 16-06-2022
2.	Taruna Kumari	Estimation of Reliability in Multicomponent Stress-Strength Model for Generalized Half-Logistic Distribution.	Deen Dayal Upadhyaya College, University of Delhi, Delhi, India	"International Conference on Advances in IoT, Security with AI" (ICAISA-2023)	International	24-03-2023 to 25-03-2023
3.	Taruna Kumari	Estimation of the Reliability Functions of Generalized Inverted Scale Family of Distributions based on Type II Censoring Scheme.	ITER, SIKSHA 'O' ANUSANDHAN, deemed to be University, Bhubaneswar and co-organized by National Institute of Technology, Arunachal Pradesh, from India	3 <sup>rd</sup> International Conference on "Applied Mathematics in Science and Engineering" (AMSE-2024)	International	25-07-2024 to 27-07-2024

4.	Taruna Kumari	Robust Bayesian analysis of generalized inverted family of distributions	Kathmandu	"11 <sup>th</sup> Triennial Conference of Association of Asia Pacific Operational Research Societies (APORS)	International	6-9 August 2018
5.	Taruna Kumari	Estimation and comparison of the stress-strength models with more than two states under Weibull distribution and type II censoring scheme	Department of Mathematics, University of Delhi, Delhi, India	The 33 <sup>rd</sup> Annual Conference of The Ramanujan Mathematical Society" (ACRMS-2018)	National	1-3 June 2018

**8. Consultancy assignment (if any):**

Sl. No.	Organization/ agency	Cost, title of consultancy	Duration
-	-	-	-

**9. Details of Institution/ Government/ Industry / own Institution Sponsored Research Projects (including Programme Evaluation) and Amount (Both completed and ongoing):**

Sl. No.	Agency	Amount	Duration with dates	Status i.e. ongoing/ completed
1.	Prayagraj Mela Authority on project title "Maha Kumbh: A model of Extreme Management, Development, Inclusion and reviving Indian Art and Culture."	NA	From 06.01.2025 -till date	Ongoing

**10. Details of Ph.D. and M.Phil. Scholars (including those awarded degree):**

Sl. No.	Name and enrolment no:	Year of registration	Year of completion/ award
1.	Mr. Abhinav Srivastava (231001483)	July 2023	-
2.	Ms. Pratishtha Mishra (231001365)	July 2023	-
3.	Mr. Anil Killa	July 2024	-

**11. Details of Programmes/ Courses coordinated/ written/ edited/ translated (if applicable):**

Sl. No.	Programme name and Code	Course	Unit (print)/ Audio/Video/ eSLM	Coordinated/Written / Edited (content/ language/ format)/ Translated	Period
1.	M.Sc. (Applied Statistics) MSCAST, IGNOU	MST-015: Introduction to R Software	Units 1 to 9 written	Course written and coordinated	10-08-2021 to till date
2.	M.Sc. (Applied Statistics) MSCAST, IGNOU	MSTL-011: Statistical Computing using R-I	Sessions 1 to 21	Course written and coordinated	10-08-2021 to till date
3.	M.Sc. (Applied Statistics) MSCAST, IGNOU	MST-18: Multivariate Analysis	Units 1 to 8 and 10 to 16; Unit 9 transformed	Course written and coordinated	10-08-2021 to till date
4.	M.Sc. (Applied Statistics) MSCAST	MST-023: Research Methodology (Jointly)	Unit 1 to 15 transformed	Course coordinated	10-08-2021 to till date
5.	Ph.D. in Statistics PHDSTAT	RST-002: Computer Applications in Research (Jointly)	-	Course Coordinated	18-03-2024 to till date
6.	Ph.D. in Statistics PHDSTAT	RST-005: Statistical Inference in Life Testing (Jointly)	-	Course Coordinated	18-03-2024 to till date

## 12. Training programmes designed and conducted, duration and dates

Sl. No.	Programme	Dates	Place	Number of Participants
-	-	-	-	-

## 13. Details of Counselling sessions conducted:

Sl. No.	Programme	Course	Place	Dates	Duration	Mode (Specify- Face to Face Radio counselling Teleconferencing Web conferencing Any Other)
1.	PGDAST	MST-004	New Delhi	20-02-2022	1 hour	Radio counselling
2.	PGDAST	MST-001	New Delhi	19-07-2022	1 hour	Radio counselling

3.	MSCAST	MST-018	New Delhi	21-05-2023	1 hour	Radio counselling
4.	MSCAST	MST- 018	New Delhi	16-01-2024	1 hour	Radio counselling
5.	MSCAST	MST-023	New Delhi	16-07-2024	1 hour	Radio counselling
6.	MSCAST	MST-023	New Delhi	25-02-2025	1 hour	Radio counselling

**14. Details of Patents granted (if any): Nil**

**15. Contribution to IGNOU's corporate life:**

Sl. No.	Chairperson/ of Committee	Member	Name of the Committee	Date/ period
1.	Member		School Council	10-08-2021 to till date
2.	Member		Ph.D. Admission Committee	10-08-2021 to till date
3.	Member		Cleanliness Committee	03-08-2022 to till date
4.	Member		School Board	12-12-2024 to 11-12-2026

**16. Administrative position/s held in the University (even as in charge)**

Sl. No.	Designation	Period
1.	Coordinator of Interactive Radio Counseling (IRC)	12-03-2024 to 12-03-2026
2.	Discipline Group Coordinator	06-02-2023 to 05-02-2024
3.	Ph.D. in Statistics Programme Coordinator	28-07-2022 to 27-07-2023

**17. Any other contribution/information. Nil**

**Taruna Kumari**

**Signature of Teacher /Academic**