3.1.2	**The department provides seed money to its teachers for research**
	3.1.2.1: The amount of seed money provided by institution to its faculty year- wise during the last five years(INR in lakhs) (**2019-2023**)

S.No	Name of the faculty receipient of Seed Money	Date of grant DD-MM-YYYY	Amount granted (INR in Lakhs) (2019-2023)
1	None		

3.1.4 ***Percentage of JRFs, SRFs among the enrolled PhD scholars in the institution during the last five years***

3.1.4.1: The Number of JRFs, SRFs among the enrolled PhD scholars in the institution during the last five years **(2019-2023)**

3.1.4.1: Number of PhD Scholars enrolled during last five years

Name of the Scholar	Specify the grants viz JRF/SRF/PDF/RA/others (please specify)	Awarding agency	Year of award	Period of award (in years)	Award Letter available at
Nayeem Ahmad Bhat	JRF (MANF)	UGC	2019	3	https://www.ugc.gov.in/pdfnews/5039532_MANF-Result-2018-19.pdf
Gulnawaz Gani	JRF (MANF)	UGC	2019	3	https://www.ugc.gov.in/pdfnews/5039532_MANF-Result-2018-19.pdf

3.2.1 3.2.1 Research funding received by the institution and its faculties through Government and non-government sources such as industry, corporate houses, international bodies for research project, endowments, Research Chairs during the last five years (INR in Lakhs) **(2019-2023)**

3.2.1.1: Total Grants for Research funding received by the institution and its faculties through Government and non-government sources such as industry, corporate houses, international bodies for research project, endowments, Research Chairs during the last five years (INR in Lakhs) **(2019-2023)**

3.2.2 Number of research projects per teacher funded by government, non-government , industry, corporate houses, international bodies during the last five years

3.2.2.1: Number of research projects funded by government and non-government agencies during the last five years **(2019-2023)**

3.2.2.2 : Number of full time teachers working in the institution during the last 5 years **(2019-2023)**

S.No	Name of of the PI/ Co-PI/Name of the person holding the Chair	Title of the research project, endowments, Research Chairs	Name of the funding agaency	Duration	Year of award or sanction	Amount in INR.
1	Dr. Umar Farooq	Education during CoVID-19 Pandemic and Beyond.	JK ST&IC, DST	1 Year	2021	2.4 Lac
2	Dr. Umar Farooq	BBBP - An empirical investigation of its impact and reach in the UT of J&K	ICSSR	Six Months	2023	10 Lac

3.4.1	**3.4.1 The institution ensures implementation of its stated Code of Ethics for research**						
	3.4.1.1 : The institution has a stated Code of Ethics for research and the implementation of which is ensured through the follow						
	1. Inclusion of research ethics in the research methodology course work						
	2. Presence of institutional Ethics committees (Animal, chemical,bio-ethics etc.,)						
	3. Plagiarism check						
	4. Research Advisory Committee						
	Options:						
	A. All of the above						
	B. Any 3 of the above						
	C. Any 2 of the above						
	D. Any 1 of the above						
	E. None of the above**(Opt any one)**						
				1. Inclusion of research ethics in the research methodology course work	**2. Presence of institutional Ethics committees (Animal, chemical,bio-ethics etc.,)**	**3. Plagiarism check**	**4. Research Advisory Committee**
				Yes	Yes	Yes	Yes
				https://deanres.uok.edu.in/Files/80c3b487-59af-4745-bbcf-1c15281d74e3/Menu/Research_policy_b5b771bc-9b9f-4b19-8a47-8ffc85ec2712.pdf			

3.4.3 **3.4.3 Number of Ph.Ds awarded per recognized guide during the last five years**

3.4.3.1: How many Ph.D s were awarded during last 5 years **(2019-2023)**

3.4.3.2 : Number of teachers recognized as guides during the last five years **(2019-2023)**

Name of the Phd research Scholar	Name of the research Superviser	Year of registration	Year of completion and Award of PhD
Ahtisham Wani	Dr. Wasim Ahmad Bhat	2015	2019
Zubair Jeelani	Dr. Fasel Qadir	2015	2019
Nayeem Ahmad Bhat	Dr. Umar Farooq	2017	2022
Gulnawaz Gani	Dr. Fasel Qadir	2017	2023
Zubair Khaliq	Dr. Umar Farooq	2019	2023
Mr. Owais	Dr. Dawood Ashraf Khan	2015	2023

3.4.4	**Number of research papers published per teacher in the Journals as notified on UGC CARE list during the last five years (2019-2023)**									
	3.4.4.1: Number of research papers published in the Journals as notified on UGC website during the last five years (2019-2023)									
		Title of paper	**Name of the author/s**	**Department of the teacher**	**Name of journal**	**Year of publication**	**ISSN number**	**Link to the recognition in UGC enlistment of the Journal**		
								Link to article/paper/abstract of the article		**Is it listed in UGC Care list**
		A deep learning-based automated framework for functional User Interface testing	Zubair Khaliq Sheikh Umar Farooq Dawood Ashraf Khan	Computer Sciences, North Campus	Information and Software Technology	2022	0950-5849	https://www.sciencedirect.com/science/article/abs/pii/S0950584922001070		**YES**
		Using deep learning for selenium web UI functional tests: A case-study with e-commerce applications	Zubair Khaliq Dawood Ashraf Khan Sheikh Umar Farooq	Computer Sciences, North Campus	Computer Sciences, North Campus	2023	0952-1976	https://www.sciencedirect.com/science/article/abs/pii/S0952197622004365		**YES**
		An Improved Method for Training Data Selection for Cross-Project Defect Prediction	Nayeem Ahmad Bhat Sheikh Umar Farooq	Computer Sciences, North Campus	Arabian Journal of Science and Engineering	2021	2191-4281	https://link.springer.com/article/10.1007/s13369-021-06088-3		YES

		An empirical evaluation of defect prediction approaches in within-project and cross-project context	Nayeem Ahmad Bhat, Sheikh Umar Farooq	Computer Sciences, North Campus	Software Quality Journal	2023	0963-9314	https://link.springer.com/article/10.1007/s11219-023-09615-7		YES
		Empirical Evaluation of Bug Proneness Index Algorithm	Nayeem Ahmad Bhat, Sheikh Umar Farooq	Computer Sciences, North Campus	International Journal of Open Source Software and Processes (IJOSSP)	2020	1942-3926	https://www.igi-global.com/article/empirical-evaluation-of-bug-proneness-index-algorithm/264483		YES
		Gap between academia and industry: a case of empirical evaluation of three software	Sheikh Umar Farooq	Computer Sciences, North Campus	International Journal of System Assurance Engineering and Management	2019	0975-6809	https://link.springer.com/article/10.1007/s13198-019-00899-2		YES
		An Assessment of Incorporating Log-Logistic Testing Effort Into Imperfect Debugging Delayed S-Shaped Software Reliability Growth Model	Nesar Ahmad Aijaz Ahmad Sheikh Umar Farooq	Computer Sciences, North Campus	International Journal of Software Innovation (IJSI)	2021	2166-7160	https://www.igi-global.com/article/an-assessment-of-incorporating-log-logistic-testing-effort-into-imperfect-debugging-delayed-s-shaped-software-reliability-growth-model/290432		YES

		Transformers for GUI Testing: A Plausible Solution to Automated Test Case Generation and Flaky Tests	Zubair Khaliq Sheikh Umar Farooq Dawood Ashraf Khan	Computer Sciences, North Campus	IEEE COMPUTER	2022	0018-9162	https://ieeexplore.ieee.org/abstract/document/9734254?casa_token=XerGacxG7BoAAAAA:QyDatnQRQlZloApUEduPvSL3ZNoNrwLorMJMGGYSwtRyy9_EEgM0dkejnNod_oIqpdI3IQWrNnVT_1A		YES
		Performance evaluation of CNN architectures for COVID-19 detection from X-ray images	Khalid Hussain Suhaib Ajaz Khan Mehreen Muzaffar Zaynab Rashid Khan Sheikh Umar Farooq	Computer Sciences, North Campus	Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization	2022	2168-1171	https://www.tandfonline.com/doi/full/10.1080/21681163.2022.2052750?casa_token=vL1dtq_U5d8AAAAA%3Aso-0bUj27ZGL61sVM19deShrXfe_wFOG23yxwy12qUhsqTtGJ2S7zD2T2p5faR5Ltm2yZbifZzycrdc		YES
		A Survey of Different Approaches for the Class Imbalance Problem in Software Defect Prediction	Abdul Waheed Dar Sheikh Umar Farooq	Computer Sciences, North Campus	International Journal of Software Science and Computational Intelligence (IJSSCI)	2022	1942-9045	https://www.igi-global.com/article/a-survey-of-different-approaches-for-the-class-imbalance-problem-in-software-defect-prediction/301268		YES
		Local modeling approach for cross-project defect prediction	Nayeem Ahmad Bhat Sheikh Umar Farooq	Computer Sciences, North Campus	Intelligent Decision Technologies	2021	1875-8843	https://content.iospress.com/articles/intelligent-decision-technologies/idt210130		YES
		A novel method for digital image copy-move forgery detection and localization	Gulnawaz Gani, Fasel Qadir	Computer Sciences, North Campus	Evolving Systems	2019	1868-6478	https://link.springer.com/article/10.1007/s12530-019-09309-1		YES

		A robust copy-move forgery detection technique based on discrete	Gulnawaz Gani, Fasel Qadir	Computer Sciences, North Campus	Journal of Information Security and Applications	2020	2214-2126	https://www.sciencedirect.com/science/article/abs/pii/S2214212619307343		YES
		Cellular automata-based digital image scrambling under JPEG	Zubair Jeelani, Fasel Qadir, Gulnawaz Gani	Computer Sciences, North Campus	Multimedia Systems		1432-1882	https://link.springer.com/article/10.1007/s00530-021-00759-9#citeas		YES
		Cellular automata-based CMF detection under single and multiple post-processing attacks	Gulnawaz Gani, Zubair Jeelani, Fasel Qadir	Computer Sciences, North Campus	Multimedia Systems	2021	1432-1882	https://link.springer.com/article/10.1007/s00530-021-00828-z		YES
		Copy move forgery detection using DCT, PatchMatch and cellular automata	Gulnawaz Gani, Fasel Qadir	Computer Sciences, North Campus	Multimedia Tools and Applications	2021	1573-7721	https://link.springer.com/article/10.1007/s11042-021-11174-7		YES
		Cellular automata-based approach for salt-and-pepper noise filtration	Zubair Jeelani, Fasel Qadir	Computer Sciences, North Campus	Journal of King Saud University - Computer and Information Sciences	2022	1319-1578	https://www.sciencedirect.com/science/article/pii/S1319157818307717		YES
		A comparative study of cellular automata-based digital image scrambling techniques	Zubair Jeelani, Fasel Qadir	Computer Sciences, North Campus	Evolving Systems	2020	1868-6478	https://link.springer.com/article/10.1007/s12530-020-09326-5		YES

		Linear cellular automata-based impulse noise identification and filtration of degraded images	Zubair Jeelani, Gulnawaz Gani, Fasel Qadir	Computer Sciences, North Campus	Signal, Image and Video Processing	2023	1863-1711	https://link.springer.com/article/10.1007/s11760-023-02484-4		YES
		FUSE based file system for efficient storage and retrieval of fragmented multimedia files	Wasim Ahmad Bhat	Computer Sciences, North Campus	Journal of King Saud University – Computer and Information Sciences	2022	1319-1578	https://doi.org/10.1016/j.jksuci.2022.08.018		YES
		Realistic and accurate physical–geometry aware disk scheduling simulation	Wasim Ahmad Bhat, Bisma Nazir, Fozia Nisar, Mehrusa Jeelani and Shugufta Majeed	Computer Sciences, North Campus	Arabian Journal for Science and Engineering	2022	2191-4281	https://doi.org/10.1007/s13369-022-06904-4		YES
		Using Singular Value Decomposition and Chaotic Maps for selective encryption of video feeds in smart traffic management	Oussama Benrhouma, Ahmad AlKhodre, Ali AlZahrani, Abdallah Namoun and Wasim Ahmad Bhat	Computer Sciences, North Campus	Applied Sciences	2022	2076-3417	https://doi.org/10.3390/app12083917		YES
		A comprehensive and effective framework for traffic congestion problem based on the integration of IoT and data analytics	Yazed AlSaawy, Ahmad AlKhodre, Adnan Abi Sen, Abdullah AlShanqiti, Wasim Ahmad Bhat and Nour Mahmoud Bahbouh	Computer Sciences, North Campus	Applied Sciences	2022	2076-3417	https://doi.org/10.3390/app12042043		YES

		Forensic analysis of anti-forensic file-wiping tools on Windows	Rayed AlHarbi, Ali AlZahrani, Wasim Ahmad Bhat	Computer Sciences, North Campus	Journal of Forensic Sciences	2021	1556-4029	https://doi.org/10.1111/1556-4029.14907		YES
		To sell, or not to sell: social media data-breach in second-hand Android devices	Oussama BenRhouma, Ali AlZahrani, Ahmad AlKhodre, Abdallah Namoun, Wasim Ahmad Bhat	Computer Sciences, North Campus	Information and Computer Security	2021	2056-4961	https://doi.org/10.1108/ICS-03-2021-0038		YES
		Forensic analysis of Twitch video streaming activities on Android	Ali AlZahrani, Mohammad Ahtisham Wani, Wasim Ahmad Bhat	Computer Sciences, North Campus	Journal of Forensic Sciences	2021	1556-4029	https://doi.org/10.1111/1556-4029.14750		YES
		Can forensic tools be trusted in digital investigations?	Wasim Ahmad Bhat, Ali AlZahrani, Mohammad Ahtisham Wani	Computer Sciences, North Campus	Science & Justice	2021	1355-0306	https://doi.org/10.1016/j.scijus.2020.10.002		YES
		Filesystem antiforensics – types, techniques and tools	Mohammad Ahtisham Wani, Ali AlZahrani, Wasim Ahmad Bhat	Computer Sciences, North Campus	Computer Fraud and Security	2020	1361-3723	https://doi.org/10.1016/S1361-3723(20)30030-0		YES
		Virtualization and visualization of virtual memory system for effective teaching-learning	Wasim Ahmad Bhat , Aazima Rashid, Faiza Fida Wani and Fiza Altaf	Computer Sciences, North Campus	Computer Applications in Engineering Education	2019	1286–1294	https://doi.org/10.1002/cae.22152		YES

		Forensic analysis of Sync.com and FlipDrive cloud applications on Android platform	Wasim Ahmad Bhat , Mohammad Faid Jalal, Sajid Sajad Khan, Faiqah Farooq Shah and Mohammad Ahtisham Wani	Computer Sciences North Campus	Forensic Science International		2019	0379-0738	https://doi.org/10.1016/j.forsciint.2019.06.003		YES
		Performance-Baseline Estimation of File System Operations for Linux-Based Edge Devices	Wasim Ahmad Bhat	Computer Sciences, North Campus	IEEE Transactions on Industrial Informatics		2024	1551-3203	https://ieeexplore.ieee.org/document/10439246		YES

3.4.5 **Number of books and chapters in edited volumes published per teacher during the last five years (2019-2023)**

Sl. No.	Name of the teacher	Title of the book pul	Title of the chapters published	Year of publication	ISBN number	Whether at the time of publication Affiliating Institution was same Yes/No	Name of the publisher
1	Dr. Fasel Qadir	Blockchain-Based Banking: Theory and Applications	Applications, Challenges, and Opportunities of Blockchain	2022	'9781668441336	Yes	IGI GLOBAL

3.4.6 **E-content is developed by teachers**

1. For e-PG-Pathshala
2. For CEC (Undergraduate)
3. For SWAYAM
4. For other MOOCs platforms
5. Any other Government Initiatives
6. For Institutional LMS

1. For e-PG-Pathshala	2. For CEC (Undergraduate)	3. For SWAYAM	4. For other MOOCs platforms	5. Any other Government Initiatives	6. For Institutional LMS
NO	No	NO	NO	NO	NO
If yes, provide links to the contents					

Options:

A. Any 4 or all of the above
B. Any 3 of the above
C. Any 2 of the above
D. Any 1 of the above
E. None of the above

(Opt any one)