Natalia Chaudhry

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About me

I am serving as an Assistant Professor at PUCIT, University of the Punjab. I obtained my MPhil in Computer Science from PUCIT, University of the Punjab and BS (Hons) in Computer Science from Kinnaird College for Women University Lahore. My areas of interest include distributed computing, databases, data management, spatial data processing, and data science.

Research Profile

Google scholar: https://scholar.google.com/citations?user=Ob2MKdMAAAAJ&hl=en&oi=ao

Research gate: https://www.researchgate.net/profile/Natalia_Chaudhry

ORCID: https://orcid.org/0000-0002-8081-827X

Conference Publications

1. **Consensus algorithms in blockchain: comparative analysis, challenges and opportunities**
   N Chaudhry, MM Yousaf
   2018 12th International Conference on Open Source Systems and Technologies (ICOSST)
2. **Spatial querying of mineral resources using PostGIS**
   N Chaudhry, MM Yousaf
   2019 2nd International Conference on Advancements in Computational Sciences (ICACS)

Journal Publications

1. **Exploiting hashing for concurrent query processing and indexing of current location of moving objects**
   N Chaudhry, MM Yousaf
   Concurrency and Computation: Practice and Experience, e8013
   2024

2. **A hash-based index for processing frequent updates and continuous location-based range queries.**
   N Chaudhry, MM Yousaf

Knowledge and Information Systems, 1-39.
2023

3. **Concurrency control for real- time and mobile transactions: Historical view, challenges, and evolution of practices.**
N Chaudhry, MM Yousaf
Concurrency and Computation: Practice and Experience,
34(3), e6549.
2021

4. **Architectural assessment of NoSQL and NewSQL systems**
N Chaudhry, MM Yousaf
Distributed and Parallel Databases 38 (4), 881-926
2020
https://link.springer.com/article/10.1007/s10619-020-07310-1

5. **Security assessment of data management systems for cyber physical system applications**
N Chaudhry, MM Yousaf, MT Khan
Journal of Software: Evolution and Process 32 (2), e2241
2020
https://onlinelibrary.wiley.com/doi/abs/10.1002/smr.2241

6. **Indexing of real time geospatial data by IoT enabled devices: Opportunities, challenges and design considerations**
N Chaudhry, MM Yousaf, MT Khan
Journal of Ambient Intelligence and Smart Environments, 1-32
2020
https://content.iospress.com/articles/journal-of-ambient-intelligence-and-smart-environments/ais200565

7. **An Authentication Scheme Authentication Scheme Authentication Scheme for SIP using Needham Schroeder using Needham Schroeder Authentication Protocol Authentication Protocol**
N Chaudhry, R Sirhindi
International Journal of Computer Science and Network 3 (4)
2014

8. **IP Camera Based Video Surveillance Using Object's Boundary Specification**
N Chaudhry, KMU Suleman
International Journal of Information Technology and Computer Science (IJITCS, 2016)

9. **A, M.,"Integrating Case-Based Reasoning and Tabu Search for University Makeup Class Scheduling"**
N Chaudhry, R Nayab, S Bashir, F Alvi, S Taimoor
Journal of Applied Enviromental and Biological Sciences 4 (9S), 36-44
2014

Education

PHD-CS	CGPA: 4.00

Punjab University College of Information Technology, Lahore, Pakistan.   *2017 - 2022*

MPhil-CS	CGPA: 3.64

Punjab University College of Information Technology, Lahore, Pakistan.   *2015 - 2017*

BS-CS (Hons.)	CGPA: 3.77

Kinnaird College for Women University, Lahore, Pakistan   *2011 - 2015*

Experience

[2023 – Present]
[Assistant Professor (Adhoc)] | [PUCIT, University of the Punjab, Lahore]

[2019 – 2023]
[Lecturer] | [PUCIT, University of the Punjab, Lahore]

[2018]
[Visiting Lecturer] | [Kinnaird College for Women University, Lahore]

Administrative, co and extra curricular duties at university level

[2020 – to date] Team Member, Affiliated College Management Committee, PUCIT, University of the Punjab, Lahore, Pakistan.