CURRICULUM VITAE

1. PERSONAL DATA

Name: **Naima Iltaf**

Date of Birth: **6 May 1979**

Place of Birth: **Rawalpindi, Pakistan**

Nationality: **Pakistani**

Contact Address: **Flat 1-B, Highrise Apartments, Willoughby Road, Rawalpindi, Pakistan**

Tel (home): **+923457276944**

Tel (Mobile): **+923215565221**

Fax : **N/A**

Email: **naima@mcs.edu.pk**

2. ACADEMIC/PROFESSIONAL PARTICULARS

(a) Field of Specialization:

Machine Learning, Data Analytics/ Recommender Systems

(b) Academic Qualifications

Degree : **PhD, 2013**
University : **National University of Sciences and Technology(NUST), Pakistan**
Title : **Computer Software Engineering**
GPA : **3.67**

Degree : **MS, 2006**
University : **National University of Sciences and Technology(NUST), Pakistan**
Title : **Computer Software Engineering**
GPA : **3.65**

Degree : **Maters, 2002**
University : **Fatima Jinnah Women University, Pakistan**
Title : **Computer Sciences**
GPA : **3.95 (Gold Medalist)**

(c) Academic Honors and Awards

Gold Medal in Master in Computer Science, Fatima Jinnah Women University, 2002

Award of NUST Endowment Scholarship, National University of Sciences and Technology (NUST), 2004

Best Teacher Award, National University of Sciences and Technology (NUST), 2018

Best Researcher Award, National University of Sciences and Technology (NUST), 2019

(d) **Membership of Professional Bodies**
N/A

(e) **Language Proficiency**
English – Expert
Urdu – Expert

3. CAREER DETAILS

(a) **Academic Positions Held**

Associate Professor, Department of Computer Software Engineering, National University of Sciences and Technology, Pakistan, 09/19-To date

Assistant Professor, Department of Computer Software Engineering, National University of Sciences and Technology, Pakistan, 09/13 - 08/19

(b) **Professional/Industrial Positions Held**
N/A

(c) **Administrative Positions Held** *(Dates: MM/YY-MM/YY)*

Head of Computer Software Society, Department of Computer Software Engineering, National University of Sciences and Technology, Pakistan, 09/20-To date

Incharge LegoKit Lab, Department of Computer Software Engineering, National University of Sciences and Technology, Pakistan, 09/15 – to date

Focal Person – Female Students, Department of Computer Software Engineering, National University of Sciences and Technology, Pakistan, 09/19 – to date

4. Teaching

(a) **Summary of Courses Taught**

- Course Code : CS 875
  Course Name : **Natural Language Processing**
  Number of times taught : 1
  Evaluation : Excellent
- Course Code : **CS 423**
  Course Name : **Data Warehousing and Data Mining**
  Number of times taught : **3**
  Evaluation : Excellent
- Course Code :
  Course Name : **Data Mining**
  Number of times taught : 4
  Evaluation : Excellent
- Course Code : SE 813
  Course Name : **Design of Parallel and Distributed Systems**
  Number of times taught : 2
  Evaluation : Excellent
- Course Code : CS 332
  Course Name : **Distributed Computing**
  Number of times taught : 3
  Evaluation : Excellent
- Course Code : CS344
  Course Name : **Web Engineering**
  Number of times taught : 5
  Evaluation : Excellent
- Course Code : SE 877
  Course Name : **Software Development for Web**
  Number of times taught : 2
  Evaluation : Excellent
- Course Code :
  Course Name : **Web Technologies**
  Number of times taught : 1
  Evaluation : Excellent
- Course Code : EE 343
  Course Name : **Image Processing**
  Number of times taught : 2
  Evaluation : Excellent
- Course Code : CS 212
  Course Name : **Object Oriented Programming**
  Number of times taught : 5
  Evaluation : Excellent
- Course Code : CS 250
  Course Name : **Data Structure**
  Number of times taught : 2
  Evaluation : Excellent
- Course Code : SE 311
  Course Name : **Software Requirement Engineering**
  Number of times taught : 1
  Evaluation : Excellent
- Course Code : SE 868

Course Name : **Software Project Management**
Number of times taught : 1
Evaluation : Excellent

(b)   Participation in Academic Accreditation

Program : **OBE Accreditation**
Role : Member
University : National University of Sciences and Technology (NUST),
Pakistan,
Name of Accreditation Body : OBE Accreditation
Period (03/2022)

Program : **OBE Accreditation**
Role : Member
University : National University of Sciences and Technology (NUST),
Pakistan,
Name of Accreditation Body : OBE Accreditation
Period (03/2019)

Program : **Pakistan Engineering Council Accreditation**
Role : Member
University : National University of Sciences and Technology (NUST),
Pakistan,
Name of Accreditation Body : Pakistan Engineering Council
Period (2017)

(c)   Research Students Supervised/Trained

Level	Number of Trainees
Postdoctoral Fellows	-
PhD Students	**2**
Master Students	**33**
Undergraduate Students	**75**

(d)   Participation in Thesis and Oral Examination Committees

Level	Number of Examinations
PhD Students	**9**
Master Students	**47**

(e)   Training

- Hands on Workshop :"Web Technologies" National University of Technology, 11/ 19
- CPD Workshop Tiled "Artificial Intelligence" National University of Sciences and Technology, 05/20

5.   RESEARCH

(a)   Research Interests

List of research interests in order of priority.

- Data Analytics
- Machine Learning
- Data Mining
- Recommender Systems
- NLP
- Image Processing
- Web Technologies
- Distributed Systems

(b)   Publications/Citations Data

Type of Publication	Number of Publications
Articles in International Refereed Journals	**24**
Conference Papers	**19**
Books/Book Chapters	-
Edited Books	-
Patents	-
Others (specify)	-

Citation Source	Number of Citations
Google Scholar	**359**

(c)   Research Grants

- Grant Type : Research & Development
- Role : PI
- Title : **"Domain specific GPT"**
- Awarding Body : Government of Pakistan
- Duration : 5/23 -11/23
- Grant Amount : PKR 1.72 Mn

- Grant Type : Research & Development
- Role : CO-PI
- Title : **"Health Informatics and disease Prediction"**
- Awarding Body : Government of Pakistan
- Duration : 4/22 -9/23
- Grant Amount : PKR 15 Mn

- Grant Type : Research & Development
- Role : PI
- Title : **"Road Accident avoiding system"**
- Awarding Body : Higher Education Commission, Pakistan
- Duration : 6/19-5/20
- Grant Amount : PKR 59,500

- Grant Type : Research & Development
- Role : PI
- Title : **"VioDet - Violence Detection"**
- Awarding Body : Higher Education Commission, Pakistan
- Duration : 6/19-5/20
- Grant Amount : PKR 75,000

- Grant Type : Research & Development
- Role : PI
- Title : **"Incident Prediction using Machine Learning"**
- Awarding Body : Government of Pakistan
- Duration : 9/17-8/19
- Grant Amount : PKR 0.25 Mn

- Grant Type : Research & Development
- Role : PI
- Title : "**Surgeon X"**
- Awarding Body : Higher Education Commission, Pakistan
- Duration : 6/17-5/18
- Grant Amount : PKR 75,000

- Grant Type : Research & Development
- Role : PI
- Title : "**Indoor Disaster Analyzer"**
- Awarding Body : Higher Education Commission, Pakistan
- Duration : 6/17-5/18
- Grant Amount : PKR 75,000

- Grant Type : Research & Development
- Role : PI
- Title : **"Virtual Visit"**
- Awarding Body : Higher Education Commission, Pakistan

- Duration : 6/18-5/19
- Grant Amount : PKR 75,000

(d)   Patents

N/A

(e)   Participation in Regional & International Conferences

N/A

6.   SERVICE

(a)   Membership of Institutional, National, or International Scientific Advisory Boards

N/A

(b)   Membership of Conference Committees

Name of Committee : **Technical Program Committee**
Role : **Member**
Name of Conference **: ComTech Conference**
Place : **Islamabad, Pakistan**
Date : **2023**

Name of Committee : **Technical Program Committee**
Role : **Co-Chair**
Name of Conference : **ComTech Conference**
Place : **Islamabad, Pakistan**
Date : **2021**

Name of Committee : **Technical Program Committee**
Role : **Co-Chair**
Name of Conference : **ComTech Conference**
Place : **Islamabad, Pakistan**
Date : **2019**

Name of Committee : **Technical Program Committee**
Role : **Co-Chair**
Name of Conference : **ComTech Conference**
Place : **Islamabad, Pakistan**
Date : **2017**

Name of Committee : **Technical Program Committee**
Role : **Co-Chair**
Name of Conference : **NSEC Conference 2016**
Place : **Islamabad, Pakistan**

Date : **2016**

Name of Committee : **Technical Program Committee**
Role : **Co-Chair**
Name of Conference : **NSEC Conference 2014**
Place : **Islamabad, Pakistan**
Date : **2014**

Name of Committee : **Technical Program Committee**
Role : **Co-Chair**
Name of Conference : **NCIA Conference 2013**
Place : **Islamabad, Pakistan**
Date : **2013**

(c)   Service as Reviewer

Journals
- Neural Computing and Applications , ISSN No. 1433-3058, Springer (since: 2019)
- Computer Networks, ISSN No. 1872-7069, Elsevier (since: 2020)

Conferences
- 11th International Defence Exhibition and Seminar
- 19th International Conference on Frontiers of Information Technology
- International Multi Topic Conference
- The Second International Conference on Distributed Computing and High Performance Computing
- 7th International Conference on Data Science and Machine Learning Applications (CDMA2022)
- 1st International Conference on Artificial Intelligence and Data Analytics
- 3rd Conference on Communications Technologies 2021
- The 32nd International Conference on Software Engineering & Knowledge Engineering
- 18th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems
- 17th International Bhurban Conference on Applied Sciences and Technology (IBCAST)-2020
- The 17th Australasian Data Mining Conference
- The 10th International Conference on Emerging Ubiquitous Systems and Pervasive Networks
- 5th IEEE International Conference on Big Data Intelligence and Computing
- 16th International Symposium on Spatial and Temporal Databases
- 28th International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises

- The 1st Interdisciplinary Workshop on Algorithm Selection and Meta-Learning in Information Retrieval
- 1st International Workshop on Recommender Systems with Big Data
- 16th International Conference on Frontiers of Information Technology
- International Conference on Communication Technologies
- 10th Asian Conference on Intelligent Information and Database Systems
- The 3rd IEEE International Conference on Big Data Intelligence and Computing
- First International Conference on Latest trends in Electrical Engineering & Computing Technologies
- International Conference on Communication Technologies
- International Conference on Communication, Computing and Digital Systems
- 14th International Bhurban Conference on Applied Sciences & Technology
- International Bhurban Conference on Applied Sciences & Technology
- Conference on Information Assurance and Cyber Security - 2015
- National Software Engineering Conference 2015
- 2014 National Software Engineering Conference
- 12th International Bhurban Conference on Applied Sciences & Technology

(d) Membership of Journal Editorial Boards   N/A

(e) Invited Presentation at Scientific Meetings/Workshops N/A

(f) University Service

Name of Committee: **Curriculum Review Committee**
Department : **Department of Computer Software Engineering**
University : **National University of Sciences and Technology, Pakistan**
Role : **Member**
Period : **02/16 – To date**

Name of Committee: **FYP Evaluation Committee**
Department : **Department of Computer Software Engineering**
University : **National University of Sciences and Technology, Pakistan**
Role : **Member**
Period : **06/14 – To date**

Name of Committee: **Technical Panel for faculty interviews**
Department : **Department of Computer Software Engineering**
University : **National University of Sciences and Technology, Pakistan**
Role : **Member**
Period : **07/19– To date**

Name of Committee: **Technical Panel for interviews of MS/ PhD Students**
Department : **Department of Computer Software Engineering**
University : **National University of Sciences and Technology, Pakistan**
Role : **Member**
Period : **08/14 – To date**

Name of Committee: **Sub-committee on academic audit and review**
Department : **Department of Computer Software Engineering**
University : **National University of Sciences and Technology, Pakistan**
Period : **09/16 – 09/17**

Name of Committee: **Curriculum Review Committee - MS in Software Engineering**
Department : **Department of Computer Software Engineering**
University : **National University of Sciences and Technology, Pakistan**
Role : **Member**
Period : **01/18 – To date**

Name of Committee: **Curriculum Review Committee - UG in Software Engineering**
Department : **Department of Computer Software Engineering**
University : **National University of Sciences and Technology, Pakistan**
Role : **Member**
Period : **09/16– To date**

Name of Committee: **Student Advisory System**
Department : **Department of Computer Software Engineering**
University : **National University of Sciences and Technology, Pakistan**
Role : **Advisor**
Period : **09/19 – To date**

(g)   Service to Profession/Industry   N/A

(h)   Public Service N/A

7.   List of Publications *(in chronological order, starting with most recent)*

(a)   International Refereed Journals *(Published or Accepted only!)*
- Ramsha Saeed, Saddaf Rubab, Zaki Murtaza, Haider Abbas **N Iltaf**, A Framework to Predict Early News Popularity Using Deep Temporal Propagation Patterns ,Expert Systems With Applications, 2022 (IF: 5.452)
- Zafran Khan, Muhammad Ishfaq Hussain, **N Iltaf**, Joonmo Kim and Moongu Jeon, CONEXTUAL MATRIX FACTORIZATION FOR HYBRID RECOMMENDER SYSTEM, Applied Soft Computing. (ISI Impact factor: 5.472)
- Ch MM, Riaz MM, **Iltaf N**, Ghafoor A, Nuwayrah JS. Shift Invariant Discrete Wavelet Transform Based Sparse Fusion of Medical Images. Signal, Image and Video Processing, 2021 (ISI Impact factor: 2.157)
- Sajid Hussain, Hammad Afzal, Ramsha Saeed, **N Iltaf,** and Mir Yasir Umair, Pharmacovigilance with Transformers: A Framework to Detect Adverse Drug Reactions using BERT Fine-Tuned with FARM, Computational and Mathematical Methods in Medicine, vol. 2021, Article ID 5589829, 12 pages, 2021. (ISI Impact factor:2.238)
- Zainub Mumtaz , Mehreen Afzal1 , Waseem Iqbal , Waqas Aman , **N Iltaf**," Enhanced metamorphic techniques - A case study against Havex malware," IEEE Access, August 2021(ISI Impact factor:3.367)
- Syed Wasif Abbas Hamdani , Abdul Waheed Khan, **Naima Iltaf**, Javid Iqbal Bangash, YawwarAbbas Bangash,Asfandyar Khan, "Dynamic Distributed Trust Management Scheme for the Internet of Things",TURKISH JOURNAL OF ELECTRICAL ENGINEERING & COMPUTER SCIENCES August 2020 . (ISI Impact factor 0.806)
- Z. Khan, **N. Iltaf**, H. Afzal, H.Abbass, DST-HRS: A topic driven hybrid recommender system based on deep semantics ",Computer Communications (ISI Impact factor: 2.766)
- M .Iqbal, M. Riaz, **N. Iltaf**, A. Ghafoor, "Shift Invariant Discrete Wavelet Transform Based Sparse Fusion of Medical Images"", Signal, Image and Video Processing, (SIVP) (ISI Impact factor: 2.088)
- Z. Khan, **N. Iltaf**, H. Afzal, H.Abbass, "Enriching Non Negative Matrix Factorization with Contextual Embeddings for Recommender Systems ", Neurocomputing 2019 (ISI Impact factor: 4.07)
- M. Farooq, M. Riaz, A. Ghafoor, **N. Iltaf**, "Pulse rate Extraction based on Local area motion Magnification", Measurement (ISI Impact factor:1.861)
- K. N. Sukhia , A. Ghafoor, M. M. Riaz and **N. Iltaf** ," Automated Acute Lymphoblastic Leukemia Detection System using Microscopic Images", IET Image Processing. 2019 (ISI Impact factor: 2.9).
- K. N. Sukhia , M. M. Riaz, A. Ghafoor and **N. Iltaf** ,Content-Based Histopathological Image Retrieval using Multi-Scale and Multichannel

Decoder based LTP, Biomedical Signal Processing & Control.2019 (<u>ISI Impact factor: 2.943</u>)

- S.Javed, H.Afzal, F.Arif, **N.Iltaf**, H.Abbas, W.Iqbal, ATSWoTS: Context Aware Trustworthy Social Web of Things System, Sensors 2019, vol19, pp3076. (<u>ISI Impact factor: 3.2</u>)
- M .Iqbal, M. Riaz, **N. Iltaf**, A. Ghafoor, "Weighted Image Fusion using Cross Bilateral Filter and Non-subsampled Contourlet Transform", Multidimensional Systems & Signal Process (MULT), pp 1–12.2019 (<u>ISI Impact factor: 2.388</u>)
- M. Iqbal, M. Riaz, **N. Iltaf**, A. Ghafoor ,"Magnetic Resonance and Computed Tomography Image Fusion using Saliency Map and Cross Bilateral Filter", Signal, Image and Video Processing 2019, pp 1–8 (<u>ISI Impact Factor: 1.894</u>)
- F. Anwar, **N. Iltaf**, H. Afzal, "A Hybrid Framework to integrate Content Embeddings in Recommender Systems for Cold Start Items", Journal of Computational Science, Elsevier 2018, vol 29, pp 9-18. (<u>ISI Impact factor:2.50</u>)
- M. Farooq, M. Riaz, A. Ghafoor, **N. Iltaf**, "An Efficient Eulerian Video Magnification Technique for Micro-biology Applications", Radioengineering2017, vol 26(1), pp 316-322 (<u>ISI Impact factor:0.96</u>).
- K. N. Sukhia , M. M. Riaz, A. Ghafoor and **N. Iltaf**, "Overlapping White Blood Cells Detection based on Watershed Transform and Circle Fitting", Radioengineering 2017, vol26(4), pp 1177-1181 (<u>ISI Impact factor:0.96</u>).
- Jabeen, M. Riaz, **N. Iltaf**, A. Ghafoor, "Image Contrast Enhancement using Weighted Transformation Function", IEEE Sensors Journal, 2016, vol 16(20), pp 7534 -7536 (<u>ISI Impact factor : 2.617</u>).
- **N**. **Iltaf**, A. Ghafoor, U. Zia and M. Hussain, "An Effective Model for Indirect Trust Computation in Pervasive Computing Environment", Wireless Personal Communications, 2014, Vol 75(3), pp 1689–1713.(<u>ISI Impact factor :0.929</u>).
- **N. Iltaf**, A. Ghafoor and U. Zia, "A Mechanism for Detecting Dishonest Recommendation in Indirect Trust Computation ", EURASIP Journal on Wireless Communication and Networking, 2013, vol 189. (<u>ISI Impact factor :1.592</u>).
- **N.Iltaf**, A. Ghafoor and M. Hussain, "Modelling Interaction Using Trust and Recommendation in Ubiquitous Computing Environment", EURASIP Journal on Wireless Communication and Networking, 2012, vol 119 (<u>ISI Impact factor : 1.592</u>).

(b) Conference Papers

- N. Ul Ain, A. Irfan, **N. Iltaf** and M. Ul Hassan, "A Hybrid Collaborative Filtering Technique for Web Service Recommendation using Contextual Attributes of Web Services," *2022 Second International*

Conference on Distributed Computing and High Performance Computing (DCHPC), Qom, Iran, Islamic Republic of, 2022.

- Syed Wasif Abbas Hamdani , **N Iltaf**, Waseem Iqbal, "DTMSim-IoT: A Distributed Trust Management Simulator for IoT Networks", 18th IEEE International Conference on Dependable, Autonomic & Secure Computing (DASC 2020)

- S Ahmad, F Arif, Z Zabeehullah, **N Iltaf** ," Novel Approach Using Deep Learning for Intrusion Detection and Classification of the Network Traffic", 2020 IEEE International Conference on Computational Intelligence and Virtual Environments for Measurement Systems and Applications (CIVEMSA) , June 2020

- F.Anwar, **N. Iltaf**, H. Afzal, H. Abbas, "A Deep Learning Framework to Predict Rating using Item Metadata for Cold Start Item", 28th IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE-2019), pp 134-139..

- F.Saleem, **N. Iltaf**, H. Afzal, M. Shahzad, "Using Trust in Collaborative Filtering for Recommendations", 28th IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE-2019).

- S.Javaid, H. Afzal, F. Arif, **N. Iltaf**, "Trust Management for SOA based Social WoT System", 20th International Conference on Advanced Communication Technology (ICACT), 2018.

- K Khalid, H Afzal, F Moqaddas, **N Iltaf**, AM Sheri, R Nawaz," Extension of Semantic Based Urdu Linguistic Resources Using Natural Language Processing", 15th Intl Conf on Pervasive Dependable, Autonomic and Secure Computing

- F.Javeed, A.Naz, **N.Iltaf**, A Review on Variant Clustering Designs in Heterogeneous WSNs , National Software Engineering Conference (NSEC 2015), Dec 2015.

- M.S. Khan, **N. Iltaf**, A.Rashdi, "Collusion-Resistant Sybil Attack Detection Scheme in Mobile Ad hoc", Networks National Software Engineering Conference (NSEC 2014), Oct 2014.

- **N. Iltaf**, A. Ghafoor and M. Hussain, "STEP-α: An Algorithmic Approach towards Trust based security in Pervasive Computing Environment", The 2011 IEEE Asia-Pacific Services Computing Conference, December 12-15, Jeju , Korea, pp. 330 – 336, 2011.

- **N. Iltaf**, and A. Ghafoor "A Fuzzy Based Credibility Evaluation of Recommended Trust in Pervasive Computing Environment", The 10h Annual IEEE Consumer Communications and Networking Conference, January 14-17, Las Vagas, USA, 2013.

- **N. Iltaf**, A. Ghafoor and U. Zia,, "An Attack Resistant Method for Detecting Dishonest Recommendation in Pervasive Computing Environment", The 18th international conference on networks (ICON 2012), Dec 12-14, Singapore, 2012.

- **N. Iltaf**, A. Ghafoor and M. Hussain, "An Adaptive Framework for Trust based Security in Pervasive Computing Environment", The 9th

Annual IEEE Consumer Communications and Networking Conference, January 17-19, Las Vagas, USA, 2012

- **N. Iltaf**, A. Ghafoor and M. Hussain, "On Trust Management for Multimedia P2P Applications in Autonomic Networking", The 2011 IEEE Asia-Pacific Services Computing Conference, December 12-15, Jeju , Korea, pp. 24 – 28, 2011

- **N. Iltaf**, and A. Ghafoor "A Recommendation Exchange Protocol between Smart Devices in Pervasive Computing Environment", The Ninth International Symposium on Frontiers of Information Systems and Network Applications (FINA-2013).

- **N. Iltaf**, M.Hussain, and F. Kamran,"A Mathematical Approach Towards Trust Based Security in Pervasive Computing Environment", 3rd International Conference on Information Security and Assurance (ISA 2009) South Korea.pp. 702 – 711, 2009.

- **Iltaf, N.;** Mahmud, U.; Kamran, F., "Security & trust enforcement in pervasive computing environment (STEP)," International Symposium on HONET, September 6-8, pp.1-5, 2006.

- Mahmud, U**., Iltaf, N**.; Mahmud, U.; Kamran, F., "Context Congregator: Gathering Contextual Information in CAPP, " Proceedings of the International Conference on Frontiers of Information Technology, 2007.

8.   References

- Dr Haider Abbas, HoD IS Department, Head of NCSEAL Lab, National University of Sciences and Technology (NUST), haider@mcs.edu.pk

- Dr Abdul Ghafoor, EE Department, MCS, National University of Sciences and Technology (NUST), abdulghafoor-mcs@nust.edu.pk

- Dr Mohsin Riaz, EE Department, COMSATS University, Islamabad, Pakistan, mohsin.riaz@comsats.edu.pk