

# CURRICULUM VITAE

## Personal Information:

Name: DR. SHAFIQ HUSSAIN  
(HEC Approved PhD Supervisor)  
Address: Assistant Prof./Head,  
Department of Computer Science  
University of Sahiwal,  
Sahiwal, Pakistan.

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Date of Birth: December, 08, 1974  
Place of Birth: Sahiwal, Punjab, Pakistan.  
Nationality: Pakistan.



## Education:

2009 to Jan 2014 PhD Software Engineering, University of Sunderland  
UK

1998 to 2000 M.Sc Computer Science, Bahauddin Zakariya  
University, Multan  
C.G.P.A 3.04/4.00  
(Bachelor Honors Degree of 16 years Education)

1994 to 1996 B.Sc Mathematics, Physics, Bahauddin Zakariya  
University, Multan  
81% marks  
(Bachelor Degree 14 years Education)

1991 to 1993 F.Sc Mathematics, Physics, Chem. Board of  
Intermediate and Secondary Education, Multan  
67% marks  
(Intermediate Degree 12 years Education)

1989 to 1991 Matric Mathematics, Physics, Chem. Board of  
Intermediate and Secondary Education, Multan  
77% marks  
(Matriculation Degree 10 years Education)

## Research Topic in PhD:

Formal Development Methodology for Secure Web Applications (FDMSWAP)

## Research Interests:

Software Modeling using Formal Methods, Modeling Secure Software Systems, Formal verification and validation of software systems, Lightweight Application of Formal methods in system design, modeling using Event-B and RODIN tools: Atelier-B provers, ProB and AnimB, System Development using Z Notation and Z/EVES Prover.

## Research Papers:

1. Hussain, S., Harry E., and Dunne P. 2011. "Threat Modeling Using Formal Methods: A New Approach to Develop Secure Web Applications." In *Emerging Technologies (ICET), 2011 7th International Conference on*, 1–5. IEEE.
2. Rasool, G. and Hussain, S. 2012. "CREAT: Customizable Reverse Engineering Abstraction Technique." *World Applied Sciences Journal* 19 (10): 1453–61.
3. Hussain, S., Dunne, P. and Rasool, G. 2013. Formal Specification of Security Properties using Z Notation. *Research Journal of Applied Sciences, Engineering and Technology*, 5(19): 4664-4670.
4. Hussain, S., Rasool, R., Atef, M. and Shahid. A. 2013. "FDMSWAP: Formal Development Methodology for Secure Web Applications." *Journal of Basic and Applied Scientific Research* 3 (3): 1123–1128.
5. Hussain, S., Rasool, R., Atef, M. and Shahid. A. 2013. "A Review of Approaches to Model Security into Software Systems." *Journal of Basic and Applied Scientific Research* 3(4): 642–647.
6. Rasool, Ghulam, Shabib Aftab, Shafiq Hussain, and Detlef Streitferdt. 2013. "eXRUP: A Hybrid Software Development Model for Small to Medium Scale Projects." *Journal of Software Engineering and Applications* 06 (09): 446–457. doi:10.4236/jsea.2013.69055.
7. Muhammad Perbat Baloch, Salman Qadri, Shafiq Hussain, Shabir Ahmad, Abu Buker Siddique, Farooq Azam. COMPARATIVE STUDY OF RISK MANAGEMENT IN CENTRALIZED AND DISTRIBUTED SOFTWARE DEVELOPMENT ENVIRONMENT. *Sci.Int.(Lahore)*,26(4),1523-1528,2014.
8. Shafiq Hussain, Asif Kamal, Shabir Ahmad, Ghulam Rasool, Sajid Iqbal. THREAT MODELLING METHODOLOGIES: A SURVEY. *Sci.Int.(Lahore)*,26(4),1607-1609,2014
9. Abu Buker Siddique, Salman Qadri, Shafiq Hussain, Shabir Ahmad, Imran Maqbool, Abdul Karim Nawaz Khan. INTEGRATION OF REQUIREMENT ENGINEERING WITH UML IN SOFTWARE ENGINEERING PRACTICES. *Sci.Int.(Lahore)*,26(5),2157-2162,2014.

10. Ghulam Rasool, Maria Khan, Shafiq Hussain. A SYSTEMATIC LITERATURE REVIEW ON MOBILE GAMES DESIGN PATTERNS. *Sci.Int.(Lahore)*, 27(2),1365-1372, 2015
11. Shabbier Ahmad, Shafiq Hussain, Muhammad Farooq Iqbal. A FORMAL MODEL PROPOSAL FOR WIRELESS NETWORK SECURITY PROTOCOLS. *Sci.Int.(Lahore)*,27(3),2271-2274,2015
12. Tahir, H. M., Shouket, A., Hussain, S., Nadeem, M., Raza, Z., & Zafar, N. A. (2015, December). Formalization of security properties using VDM-SL. In *Information and Communication Technologies (ICICT), 2015 International Conference on* (pp. 1-6). IEEE.
13. Shafiq Hussain, Muhammad Rehan Faheem. Separation of Veins and Arteries for estimating Hypertensive Retinopathy in Fundus Images. *Biomedical Research and Therapy*, 3(6), pp. 673-678, 2016.
14. Fozia Saeed, Shafiq hussain, Zeeshan Ul Haq, Rakhshan Sultan. “Interactive Case Recognition using Forensic Techniques” *International Journal of Computer Science and Information Security (2017)*: 123-126
15. Jabbar, Abdul, Sajid Iqbal, Muhammad Usman Ghani Khan, and Shafiq Hussain. "A survey on Urdu and Urdu like language stemmers and stemming techniques." *Artificial Intelligence Review* 49, no. 3 (2018): 339-373. (Impact Factor 1.731)
16. Hussain, S., Farid, S., Alam, M., Iqbal, S. and Ahmad, S., 2018. Modeling of Access Control System in Event-B. *The Nucleus*, 55(2), pp.74-84.

### **Employment:**

Working as Project Director HEC Development Project for University of Sahiwal, Director IT, University of Sahiwal, Project Director, HEC Development Project BZU Sub-Campus Sahiwal, Campus Incharge, Directorate of Distance Education (DDE) BZU Sub-Campus Sahiwal and Assistant Professor Computer Science University of Sahiwal, Teacher Incharge Department of Computer Science University of Sahiwal, Campus Director, University of Sahiwal, Sahiwal.

### **Administrative Experience:**

05-10-2018 to Date

Project Director, HEC Development Project titled “Development of University of Sahiwal”

05-10-2018 to Date	Director IT, University of Sahiwal
05-10-2018 to Date	Incharge Website, University of Sahiwal
30-06-2013 to Date	Project Director, HEC Development Project BZU Sub-Campus Sahiwal where I completed Academic Block-2 building, Overhead Water Reservoir, 10 Nos Residences, Girls Hostel, Metal Road and brick soling. I purchased and developed 2 No of Computer Labs, Physics Lab, Chemistry Lab and Psychology Lab. My other achievements include: purchase of 630 KVA WAPDA standard transformer, installation and operation of internal electricity and development of feasibility report for independent electric feeder for BZU Sub-Campus Sahiwal (University of Sahiwal).
07-11-2016 to 08-03-2018	Campus Director for one and half year. In this capacity, I developed the barren land of the university. My major achievements being Campus Director are: development of irrigation systems of university land including water hydrant, thousands of feet of water channels, plantation of many hundred trees, landscaping of university lands, development of thousands of fee security path ways along boundary wall, development of many grassy lawns and development of thousands of fee pathways for students.
21-01-2016 to 30-06-2018	Campus Incharge, Directorate of Distance Education (DDE) BZU Sub-Campus Sahiwal where I eliminated corrupt mafia and made the system transparent, neat and clean.
30-09-2014 to Date	Head, Department of Computer Science BZU Sub-Campus Sahiwal where I started the Department of Computer Science from scratch and started BS Computer Science Program (Morning and Evening), MCS Program (Morning and Evening) and MSCS program (Evening). All these programs are running successfully with 100% (approx.) admissions every year.
28-10-2002 to 07-06-2005	Director Students Affairs, Center for Undergraduate Studies, Bahauddin Zakariya University, Multan
10-03-2003 to 28-03-2005	Assistant Superintendent Ali Hall (Hostel), Bahauddin Zakariya University, Multan
28-03-2005 to 05-05-2006	Superintendent Ali Hall (Hostel), Bahauddin Zakariya University, Multan

07-06-2005 to 17-10-2007 Incharge Examinations, Center for Undergraduate Studies, Bahauddin Zakariya University, Multan

### **Teaching Experience:**

23-03-2009 to 21-02-2013 PhD Studies at the University of Sunderland UK.

22-03-2013 to Date Head, Department of Computer Science BZU Sub-Campus Sahiwal.

02-06-2015 to Date Assistant Professor, Department of Computer Science, BZU Sub-Campus Sahiwal.

07-06-2004 to 22-03-2009 Lecturer in Computer Science in the Center for Undergraduate Studies, Bahauddin Zakariya University, Multan

28-10-2002 to 06-06-2004 Lecturer (Contract) in Computer Science in the Center for Undergraduate Studies, Bahauddin Zakariya University, Multan

25-06-2001 to 28-10-2002 Visiting Lecturer in Computer Science, in the Department of Statistics, Department of Commerce, Department of Civil Engineering and Department of English at Bahauddin Zakariya University, Multan.

### **References:**

#### **Dr. Chris Bowerman**

Reader,  
Department of Computing, Engineering and Technology, University of Sunderland UK.  
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#### **Dr. Peter Dunne,**

Senior Lecturer,  
Department of Computing, Engineering and Technology,  
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