

# Minhaz Fahim Zibran

176 Thorvaldson Building, 110 Science Place  
Department of Computer Science  
University of Saskatchewan, Canada

Email: minhaz.zibran@usask.ca  
Phone: +1 (306) 251 1919  
Web: www.usask.ca/~minhaz.zibran

## Objective

---

- Contributing to the community by performing research and teaching, while maintaining relevant professional practice and administrative involvements.
- Research and Teaching Interests:
- Program comprehension and manipulation
  - Software evolution and maintenance
  - Software architecture, and design patterns
  - Mining software repositories
  - Empirical software engineering
  - Search based software engineering
  - Combinatorial optimization
  - Algorithms and data structure
  - Usability engineering
  - Software process and tool support

## Academic Record

---

2009 – to date **Ph.D. in Computer Science** (CGPA 90.5%, expected to complete by December 2012)  
Department of Computer Science, University of Saskatchewan, Canada.  
Thesis: Analysis and Management of Code Clones

2005 – 2007 **M.Sc. in Computer Science** (CGPA 4.0 out of 4.0)  
Department of Mathematics and Computer Science, University of Lethbridge, Canada.  
Thesis: A Multi-phase Approach to University Course Timetabling

1999 – 2002 **B.Sc. in Computer Science and Information Technology** (CGPA 4.69 out of 5.0)  
Islamic University of Technology (IUT), Gazipur, Bangladesh.  
Thesis: Computer Representation of Bangla Characters and Sorting of Bangla Words

- Completed graduate courses:
- Complexity and Algorithm
  - Mathematical Programming
  - Research Methods in Human Computer Interaction
  - Agile Software Engineering
  - Modifiability of Large Scale Software
  - Qualitative Research Methods in Software Engineering
  - Software Maintenance
  - Biometric Technology
  - Cryptography
  - Sensor Systems

## Teaching Experience

---

Sept 2009 – to date **Teaching Assistant**,  
Department of Computer Science, University of Saskatchewan, Canada.

May 2008 – Aug 2008 **Visiting Faculty**,  
Department of Computer Science, American International University Bangladesh.

Sept 2005 - Aug 2007 **Teaching Assistant**,  
Department of Mathematics and Computer Science, University of Lethbridge, Canada.

Mar 2004 – Aug 2005 **Lecturer**,  
Department of Computer Science and Infor. Tech., Islamic University of Tech., Bangladesh.

Sept 2003 - Apr 2004 **Lecturer (part time)**,  
Department of Computer Science and Engineering, Southeast University, Bangladesh.

- Taught undergraduate courses:
- Data Structure and Algorithms
  - Object Oriented Programming
  - Object Oriented System Analysis and Design
  - Parallel and Distributed Systems
  - Unix Programming
  - Visual Programming with Java
  - Human Computer Interaction
  - E-commerce and Web Design
  - Enterprise Resource Planning
  - Management Information Systems

---

**Industry Experience**


---

- July 2003 – Feb 2004    **Senior Programmer Analyst (C++ Projects)**, Seventh Sense Software, Bangladesh.  
[managed software projects and developed a specialized Knowledge Management System]
- Nov 2002 – July 2003    **Programmer (Java team)**, Grameen Software Ltd., Bangladesh.  
[performed requirement analysis, planning, and co-developed an integrated Management Information System for the special security force (SSF) of the Honorable Prime Minister’s Office of Bangladesh]

---

**Organizing Abilities**


---

- 2011 – 2012    Elected **President** of the Computer Science Graduate Course Council, Department of Computer Science, University of Saskatchewan, Canada.
- 2011 – 2012    Elected **President** of the Bangladeshi Students’ Association at the University of Saskatchewan (BSAUS), Canada.
- 2011 – 2012    **Web Chair** for the 12<sup>th</sup> IEEE International Conference on Source Code Analysis and Manipulation (SCAM 2012) to be held during 23 – 24 Sept 2012 at Riva del Garda, Trento, Italy.  
[conference website: <http://scam2012.cs.usask.ca/>]
- 2010 – 2011    **Web Chair** for the 19<sup>th</sup> IEEE International Conference on Program Comprehension (ICPC 2011) held during 22 – 24 June 2011 at the Queens University, Kingston, Ontario, Canada.  
[conference website: <http://icpc2011.cs.usask.ca/>]
- 2010 – 2011    **GSA (Graduate Students Association) Representative** for the Computer Science Graduate Course Council, Department of Computer Science, University of Saskatchewan, Canada.
- 2004 – 2005    **Member** of the organizing committee for the 8<sup>th</sup> IEEE International Conference on Computer and Information Technology (ICCIT 2005) held in Dhaka, Bangladesh.
- 2005    Completed a short course on Leadership Development, jointly organized by the British High Commission and Dhaka University, Bangladesh.

---

**Students Co-supervision and Mentoring**


---

- 2004    “Design and Development of a Software Level (loosely-coupled) Ubiquitous Computing Grid: A Job Submission and Allocation Tool for Distributed Processing and a Way to Govern the Operations of the Home Appliances”, undergraduate dissertation, Islamic University of Technology, Bangladesh.
- 2004    “An Alternative Framework of E-Commerce and Electronic Payment Systems Specially Suitable for the Developing Countries Like Bangladesh”, undergraduate dissertation, Islamic University of Technology, Bangladesh.
- 2004    Coach for the Islamic University of Technology programming team for the National Computer Programming Contest held at the International Islamic University Chittagong, Bangladesh.

---

**Publications**


---

*Refereed Conference/Journal Contributions:*

1. **M. F. Zibran** and C. K. Roy. “IDE-based Focused Search for Near-miss Clones”. In the 27<sup>th</sup> *ACM Symposium On Applied Computing (ACM-SAC)*, 8 pp., Italy, 2012 (to appear).
2. **M. F. Zibran** and C. K. Roy. “A Constraint Programming Approach to Conflict-aware Optimal Scheduling of Prioritized Code Clone Refactoring”. In the 11<sup>th</sup> *IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM 2011)*, pp. 105–114, USA, 2011. (invited at a special issue of IET Journal)
3. **M. F. Zibran**, F. Z. Eishita, and C. K. Roy. “Useful, but usable? Factors Affecting the Usability of APIs”. In the 18<sup>th</sup> *Working Conference on Reverse Engineering (WCRE 2011)*, pp. 151–155, Ireland, 2011.
4. **M. F. Zibran**. “Analysis and Management of Code Clones”. In the doctoral symposium of the 27<sup>th</sup> *IEEE International Conference on Software Maintenance (ICSM 2011)*, 4 pp., USA, 2011.

5. **M. F. Zibran** and C. K. Roy. “Conflict-aware Optimal Scheduling of Code Clone Refactoring: A Constraint Programming Approach”. In the student symposium of the 19<sup>th</sup> *IEEE International Conference on Program Comprehension (ICPC 2011)*, pp. 266–269, Canada, 2011.
6. **M. F. Zibran**, R. K. Saha, M. Asaduzzaman, and C. K. Roy. “Analyzing and Forecasting Near-miss Clones in Evolving Software: An Empirical Study”. In the 16<sup>th</sup> *IEEE International Conference on Engineering of Complex Computer Systems (ICECCS 2011)*, pp. 295–304, USA, 2011.
7. R. K. Saha, M. Asaduzzaman, **M. F. Zibran**, C. Roy, and K. A. Schneider. “Evaluating Code Clone Genealogies at Release level: An Empirical Study”. In the 10<sup>th</sup> *IEEE International Conference on Source Code Analysis and Manipulation (SCAM 2010)*, pp. 87–96, Romania, 2010.
8. **M. F. Zibran**. “What Makes API’s Difficult to Use?”. *International Journal of Computer Science and Network Security (IJCSNS)*, 8 (4): 255-261, 2008.
9. S. Hossain and **M. F. Zibran**. “M-Sched: A University Course Timetabler”. In the 7<sup>th</sup> *International Conference on the Practice and Theory of Automated Timetabling (PATAT 2008)*, 4 pp., Canada, 2008.
10. A. K. Pathan, M. A. Mottalib, and **M. F. Zibran**. “An Internet Framework to Bring Coherence between WAP and HTTP Ensuring Better Mobile Internet Security”. In the 8<sup>th</sup> *IEEE International Conference on Advanced Communication Technology (ICACT 2006)*, vol. 1, pp. 215–220, Republic of Korea, 2006.
11. A. K. Pathan and **M. F. Zibran**. “Ensuring Security in WAP and Usability in WAP Applications”. In the 8<sup>th</sup> *IEEE International Conference on Computer and Information Technology (ICCIT 2005)*, pp. 780–785, Bangladesh, 2005.
12. **M. F. Zibran**, A. Tanvir, M. Rajiullah, and M. A. Sattar. “Computer Representation of Bangla Characters and Sorting of Bangla Words”. In the 5<sup>th</sup> *IEEE International Conference on Computer and Information Technology (ICCIT 2002)*, pp. 191–195, Bangladesh, 2002.

*Refereed Workshop Contributions:*

13. **M. F. Zibran** and C. K. Roy. “Towards Flexible Code Clone Detection, Management and Refactoring in IDE”. In the 5<sup>th</sup> *ACM International Workshop on Software Clones (IWSC’2011)*, pp. 75–76, USA, 2011.
14. S. Hossain and **M. F. Zibran**. “A Multi-phase Approach to the University Course Timetabling Problem”. In the 6<sup>th</sup> *Cologne-Twente Workshop on Graphs and Combinatorial Optimization*, pp. 73–76, The Netherlands, 2007.

*Posters and Tool Demonstrations*

15. **M. F. Zibran**. “Diagnosis and Treatment of Code Clones”. In poster symposium of the 27<sup>th</sup> *IEEE International Conference on Software Maintenance (ICSM 2011)*, USA, 2011.
16. **M. F. Zibran** and C. K. Roy. “Code Clones: Etiology, Effects, and Treatment” In the *CSER (Consortium for Software Engineering Research) 2011 Spring Meeting (poster session)*, Ontario, Canada, 21 June 2011.
17. **M. F. Zibran** and C. K. Roy. “Cloning in Software: Why, When, and How?”. In the *College of Arts and Science Graduate Students Poster Symposium*, University of Saskatchewan, Canada, 19 April 2011.
18. **M. F. Zibran** and C. K. Roy. “Flexible Code Clone Detection and Management in IDE”. In the *Technology showcase in the 20<sup>th</sup> Annual Conference (CASCON 2010)*, Centre for Advanced Studies Research, IBM Canada Software Laboratory, Canada, 2010.
19. **M. F. Zibran**. “A Multi-phase Approach to Automated Course Timetabling”. Poster session in the 2007 *CMS-MITACS Joint Conference*, pp. 129, Manitoba, Canada, 2007.
20. A. Azim, S. Kabir, and **M. F. Zibran**. “Alternative Frameworks of E-Commerce and Electronic Payment Systems Specially Suitable for the Developing Countries Like Bangladesh”. Poster paper in the 8<sup>th</sup> *IEEE International Conference on Computer and Information Technology (ICCIT 2005)*, Bangladesh, 2005.

*Technical Reports and Other Contributions:*

21. **M. F. Zibran**. “Evaluating Test Quality”, *Technical Report 2012-01*, 14 pp., Department of Computer Science, University of Saskatchewan, Canada, 2012.
22. **M. F. Zibran**. “Biometric Authentication: The Security Issues”, *Technical Report 2012-02*, 09 pp., Department of Computer Science, University of Saskatchewan, Canada, 2012.
23. **M. F. Zibran**. “Cryptographic Security for Emails: A Focus on S/MIME”, *Technical Report 2011-03*, 19 pp., Department of Computer Science, University of Saskatchewan, Canada, 2011.
24. **M. F. Zibran**. “Eye Based Authentication: Iris and Retina Recognition”, *Technical Report 2011-04*, 56 pp., Department of Computer Science, University of Saskatchewan, Canada, 2011.
25. T. Yeung and **M. F. Zibran**. “AlouetteCanada Metadata Toolkit Usability Pilot Study”. Research Findings, New Media Research and Development Initiative, The Canadian Association of Research Libraries, 11 pp., Canada, 2007.

**Invited Talks and Presentations**

---

1. **M. F. Zibran**. “Clone Management”. In the *Mini Clone Workshop at the CSER (Consortium for Software Engineering Research) 2011 Spring Meeting*, Kingston, Ontario, Canada, 21 June 2011.
2. **M. F. Zibran**. “Design Patterns”, two lectures in the undergraduate course on “Intermediate Software Engineering” at the Department of Computer Science, University of Saskatchewan, Canada, Fall 2010.
3. **M. F. Zibran**. “Design Patterns: design, implementation, and implications”, four lectures in the undergraduate course on “Intermediate Software Engineering” at the Department of Computer Science, University of Saskatchewan, Canada, Fall 2009.
4. **M. F. Zibran**. “Automated University Course Timetabling”. Presentation in front of the administrative staff at the University of Lethbridge, Canada, 2007.
5. **M. F. Zibran**. “Solving Systems of Linear Equations”, three lectures in the undergraduate course on “Linear Algebra” at the Department of Mathematics and Computer Science, University of Lethbridge, Canada, Summer 2007.

**Reviewer for Conference/Journal Publications**

---

- 18<sup>th</sup> Working Conference on Reverse Engineering (WCRE 2011), Ireland, 2011.
- 27<sup>th</sup> IEEE International Conference on Software Maintenance (ICSM 2011), USA, 2011.
- 11<sup>th</sup> IEEE Intl. Working Conference on Source Code Analysis and Manipulation (SCAM 2011), USA, 2011.
- 2011 IEEE International Conference on Multimedia and Expo (ICME 2011), Spain, 2011.
- 17<sup>th</sup> Working Conference on Reverse Engineering (WCRE 2010), USA, 2010.

**Major Awards**

---

- 2012 ACM SIGAPP Student Travel Award for attending the 27<sup>th</sup> ACM Symposium on Applied Computing, Italy.
- 2012 Travel and accommodation support for attending the Dagstuhl Seminar 12071 at Wadern, Germany.
- 2011 Department of Computer Science Ph.D. Scholarship, University of Saskatchewan, Canada.
- 2011 College of Graduate Studies and Research Travel Award, University of Saskatchewan, Canada.
- 2009 NSERC (Natural Sciences and Engineering Research Council of Canada) Post Graduate Scholarship (doctoral level).
- 2007 Province of Alberta International Student Projects Award.
- 2007 Travel Grant, Graduate School, University of Lethbridge, Canada.
- 2001 8<sup>th</sup> position in the 26<sup>th</sup> ACM Regional Computer Programming Contest for Asia Region.
- 1998 16<sup>th</sup> in the merit list for the Higher Secondary Certificate examination, Rajshahi Education Board, Bangladesh.

## **Professional Membership**

---

- Member, Institute of Electrical and Electronic Engineering (IEEE)
- Member, Association of Computing Machinery (ACM)
- Member, ACM Special Interest Groups on Applied Computing (SIGAPP)
- Member, Institute of Engineers Bangladesh (IEB)

## REFERENCES:

### **Ph.D. Supervisor**

#### **Dr. Chanchal K. Roy**

Assistant Professor,  
Department of Computer Science, University of Saskatchewan, Canada.  
Phone: +1 (306) 966-4163  
Email: [croy@cs.usask.ca](mailto:croy@cs.usask.ca)  
Web: <http://www.cs.usask.ca/faculty/croy/>

### **M.Sc. Supervisor**

#### **Dr. Shahadat Hossain**

Associate Professor,  
Department of Mathematics and Computer Science, University of Lethbridge, Canada.  
Phone: +1 (403) 329 2475  
Email: [shahadat.hossain@uleth.ca](mailto:shahadat.hossain@uleth.ca)  
Web: <http://www.cs.uleth.ca/~hossain/>

### **Referee**

#### **Dr. Kevin G. Stanley**

Assistant Professor,  
Department of Computer Science, University of Saskatchewan, Canada.  
Phone: +1 (306) 966-4163  
Email: [kstanley@cs.usask.ca](mailto:kstanley@cs.usask.ca)  
Web: <http://www.cs.usask.ca/faculty/stanley/kstanley/>