Summer 2015

Volume 2, Issue 2

# Math & Computer Science

#### UNIVERSITY OF LETHBRIDGE

#### LONG SERVICE AWARDS 2015

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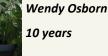


Amir Akbary-Majdabadno 15 years



Hadi Kharaghani 25 years







Trent Takeyasu 15 years



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## PROMOTIONS

Congratulations to the following on their successful promotions this year! The new designations became effective July 1, 2015.



Robert Benkoczi Associate Professor

> Daya Gaur Professor





Joy Morris

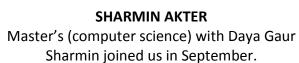
Professor

### **GRADUATE STUDENTS**—incoming











FARZIN KEYKAVOOS AMAND Master's (computer science) with Wendy Osborn

Master's (computer science) with Jackie Rice Musharrat also arrived in May.

**MUSHARRAT KHAN** 

SAHAR SIAVASHI

Master's (mathematics) with Amir Akbary

Sahar arrived in May.



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### **GRADUATE STUDENTS**—incoming

The following graduate students also joined us in September:









LAZIMA ANSARI Master's (computer science) with Daya Gaur

AHAMAD IMTIAZ KHAN Master's (computer science) with Shahadat Hossain

MIR TAFSEER NAYEEM Master's (computer science) with Yllias Chali

**PARIJAT PUROHIT** Master's (computer science) with Robert Benkoczi/Daya Gaur



MD MAHMUDUL HASAN RAFEE

Master's (computer science) with Jackie Rice

Photo Not Available

SHAULI SUMI Master's (computer science) with Wendy Osborn



SARA SASANI

PhD (mathematics) with Hadi Kharaghani

[Sara completed her Master's this summer and is now continuing on with her Phd, also with Hadi Kharaghani]



YE WANG PhD (computer science) with Hua Li [Ye completed his Master's this summer and is now continuing on with his PhD, with Hua Li] PAGE 6

### Theses Defenses—Defended!



#### S.M. ERFANUL KABIR CHOWDHURY,

MSc (computer science) Defended: 24 June 2015 Thesis: *Orthogonal Design* 

Committee: Hadi Kharaghani, supervisor Wolfgang Holzmann, committee member Mark Walton, committee Amir Akbary-Majdabadno, examination chair



FATEMEH (FARNOOSH) GHIYAFEH DAVOODI, MSc (computer science) Defended: 31 August 2015 Thesis: Semi-Extractive Multi-Document Summarization

Committee: Yllias Chali, supervisor Wendy Osborn, committee member John Zhang, committee member Jackie Rice, examination chair



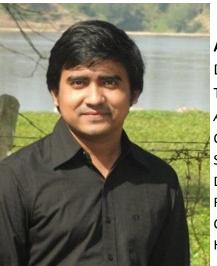
JAYATI LAW, MSc (computer science) Defended: 6 August 2015 Thesis: *Minimization of Lines in Reversible Circuits* 

Committee: Jacqueline Rice, supervisor Robert Benkoczi, committee member Stephen Wismath, committee member Howard Cheng, examination chair



FARIHA NAZ, MSc (computer science)Defended: 23 July 2015Thesis: Do Sociolinguistic Variations Exist in Programming?

Committee: Jacqueline Rice, supervisor Inge Genee, committee member Javid Sadr, committee member Kevin Grant, committee member Howard Cheng, examination chair



ANIK SAHA, MSc (computer science) Defended: 25 August 2015 Thesis: *Bi-Directional Determination of Sparse Jacobian matrices: Algorithms and Lower Bounds* Committee: Shahadat Hossain, supervisor Daya Gaur, committee member Robert Benkoczi, committee member Christopher Annand, external examiner Hadi Kharaghani, examination chair



SARA SASANI, MSc (mathematics) Defended: 25 May 2015 Thesis: Association Schemes and Mutually Unbiased Hadamard Matrices Committee: Hadi Kharaghani, supervisor Wolfgang Holzmann, committee member Mark Walton, committee member Amir Akbary, examination chair PAGE 8

### Theses Defenses—Defended!



SHARMIN SULTANA, MSc (mathematics) Defended: 19 August 2015 Thesis: Optimal Paths Related to Discrete Transport Problems Committee: Abbas Momeni, supervisor Amir Akbary, committee member Nathan Ng, committee member Hadi Kharaghani, examination chair

### CONGRATULATIONS!

### Medal of Merit, Master of Science



The School of Graduate Studies Medal of Merit, Master of Science, has been awarded to our very own Mohammad Akbary. Thesis: *claVision: Visual Automatic Piano Music Transcription* 

**Mohammad Akbari** was born and grew up in Abadeh, Fars, Iran. He began his Masters in Computer Science the University of Lethbridge in 2013, under the supervision of Dr. Howard Cheng. Also a musician, Akbari did research in an interdisciplinary field in computer science and music, which resulted in developing an innovative system named claVision for visual piano music transcription. Winning the 2014 Cana-

dian Microsoft Imagine Cup Innovation Competition, filing a patent application for claVision and incorporating claVision Inc. are other achievements during his master studies. He is currently a PhD student in Engineering Science at Simon Fraser University.

### **Summer MITACS Students**

The department enjoyed the company of three MITACS students this summer.

- \* Muhammad Khalid Alanquri—with Jackie Rice
- \* Kanika Parashar—with Yllias Chali
- \* Santhosh Kumar Polubothu—with Jackie Rice

We wish them continued success in their academic pursuits!

### **INCOMING DEPARTMENT MEMBERS**



JOHN ANVIK Faculty, Computer Science



SEAN FITZPATRICK Instructor III, Math/Stats

ALIA HAMIEH Post Doctoral Fellow



ALEXEY POPOV Faculty, Mathematics

#### DEPARTMENT SEMINARS, COLLOQUIA, CONFERENCES www.uleth.ca/artsci/math-computer/science/events

#### Lethbridge Number Theory & Combinatorics Seminar Series (Mondays, noon):

- May 8, 2015—Ram Murty (Queen's University)
  "Consecutive Squarefall Numbers"
- June 1, 2015—Adam Felix (KTH Royal Institute of Technology, Sweden)
  "How close is the Order of *a* mod *p* to *p*—1?"
- June 15, 2015—Darcy Best (Monash University, Australia)
  "Finding Long Transversals in Latin Squares"
- August 6, 2015—Anders Södergren (University of Copenhagen)
  "Low-lying zeros of Artin L-functions"
- August 6, 2015—Daniel Fiorilli (University of Ottawa)
  "On Vaughan's Approximation"

#### Other:

• May 8 and 9—Alberta Mathematics Dialogue 2015 was hosted by the department.

