Surjya Ghosh

Centrum Wiskunde & Informatica (CWI) Amsterdam, The Netherlands
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RESEARCH INTERESTS	Affective Computing, Human-Computer Interaction.

WORK EXPERIENCE

Postdoctoral Researcher   Aug 2019 - to date.
- *Centrum Wiskunde & Informatica*, Amsterdam, The Netherlands
- Advisors: Prof. Pablo Cesar & Dr. Abdallah El Ali

Manager   Jul 2014 - Jan 2015
- *Capgemini India*, Kolkata, India
- Led the SAP CRM Implementation of SAB Miller Account.

Senior Advisory Consultant   Mar 2013 - Mar 2014
- *IBM India*, Kolkata, India
- Worked as a SAP CRM Functional Consultant for Welch Allyn project.

Assistant Consultant   Oct 2003 - Mar 2013
- *TATA Consultancy Services Ltd.*, India
- Worked as a SAP CRM Functional Consultant for AGL Energy in Australia.
- Worked as a Business Analyst for CitiGroup, Eli Lilly and Company in USA.

EDUCATION

Doctor of Philosophy (Ph.D.)   Jan 2015 - Jul 2019
Thesis submitted in Jul 2019, defended in Feb 2020.
- Indian Institute of Technology Kharagpur, WB, India.
- Computer Science & Engineering
- Advisors: Dr. Bivas Mitra & Prof. Niloy Ganguly
- Thesis: Developing Smartphone Keyboard Interaction-based Emotion Detection System

Master of Technology (M.Tech.)   2012 - 2014
- Indian Institute of Technology Kharagpur, WB, India.
- Information and Communication Technology
- CGPA: 9.53/10
- Thesis: Dynamic Community Detection In Evolutionary Network.

Bachelor of Technology (B.Tech.)   1999 - 2003
- Haldia Institute of Technology, Vidyasagar University, WB, India.
- Computer Science & Engineering
- Total Marks: 87.5%
- Thesis: Workflow Implementation in Library Management System.
- Ranked 2nd in the department.

Higher Secondary Examination (10 + 2)   1999
- West Bengal Council of Higher Secondary Education, India
- Total Marks: 88.9%

Secondary Examination (10)   1997
- West Bengal Board of Secondary Education, India
- Total Marks: 87.25%

Publications | **Articles in Peer-reviewed Journals**

[1] **Surjya Ghosh**, Kaustubh Hiware, Niloy Ganguly, Bivas Mitra, and Pradipta De, "Emotion Detection from Touch Interactions during Text Entry on Smartphones", International Journal of Human-Computer Studies, Elsevier, 2019. DOI:10.1016/j.ijhcs.2019.04.005.

[2] **Surjya Ghosh**, Niloy Ganguly, Bivas Mitra, and Pradipta De, "Designing An Experience Sampling Method for Smartphone based Emotion Detection", IEEE Transactions on Affective Computing, 2019. DOI:10.1109/TAFFC.2019.2905561.

Articles in Peer-reviewed Conferences

[3] **Surjya Ghosh**, Bivas Mitra, and Pradipta De, "Towards Improving Emotion Self-report Collection using Self-reflection", ACM CHI Conference on Human Factors in Computing Systems (ACM CHI 2020), Honolulu, USA (Late-breaking Works). DOI:10.1145/3334480.3383019.

[4] Tong Xue, **Surjya Ghosh**, Gangyi Ding, Abdallah El Ali, and Pablo Cesar, "Designing Real-time, Continuous Emotion Annotation Techniques for 360° VR Videos", ACM CHI Conference on Human Factors in Computing Systems (ACM CHI 2020), Honolulu, USA (Late-breaking Works). DOI:10.1145/3334480.3382895.

[5] Soumyajit Chatterjee, Adrija Bhowmik, Arun Singh, **Surjya Ghosh**, Bivas Mitra, and Sandip Chakraborty, "Detecting Mobility Context over Smartphones using Typing and Smartphone Engagement Patterns", 18th IEEE International Conference on Pervasive Computing & Communications (PerCom 2020), Austin, USA. **(To appear)**

[6] **Surjya Ghosh**, Shivam Goenka, Niloy Ganguly, Bivas Mitra, and Pradipta De, "Representation Learning for Emotion Recognition from Smartphone Keyboard Interactions", 8th International Conference on Affective Computing & Intelligent Interaction (ACII 2019), Cambridge, UK. DOI:10.1109/ACII.2019.8925518.

[7] **Surjya Ghosh**, Kaustubh Hiware, Niloy Ganguly, Bivas Mitra, and Pradipta De, "Does Emotion Influence the Use of Auto-suggest during Smartphone Typing?", 24th International Conference on Intelligent User Interfaces (ACM IUI 2019), Los Angeles, USA. DOI:10.1145/3301275.3302329.

[8] **Surjya Ghosh**, Sumit Sahu, Niloy Ganguly, Bivas Mitra, and Pradipta De, "EmoKey: An Emotion-aware Smartphone Keyboard for Mental Health Monitoring", 11th International Conference on Communication Systems and Networks (COMSNETS 2019), Bangalore, India (Poster). DOI:10.1109/COMSNETS.2019.8711078. **(Best Paper Award - 3rd Place)**

[9] Suman Kalyan Maity, Ankan Mullick, **Surjya Ghosh**, Anil Kumar, Sunny Dhamnani, Sudhansu Bahety, and Animesh Mukherjee, "Understanding Psycholinguistic Behavior of Predominant Drunk Texters in Social Media", In IEEE ISCC Workshops - ICTS4eHealth (2018) Natal, Brazil. DOI:10.1109/ISCC.2018.8538637. **(Best Paper Award)**

[10] **Surjya Ghosh**, Niloy Ganguly, Bivas Mitra, and Pradipta De, "Effectiveness of Deep Neural Network Model in Typing-based Emotion Detection on Smartphones", 24th Annual International Conference on Mobile Computing and Networking (ACM Mobicom 2018), New Delhi, India (Poster). DOI:10.1145/3241539.3267761.

[11] Rohit Verma, **Surjya Ghosh**, Saketh Mahankali, Niloy Ganguly, Bivas Mitra, and Sandip Chakraborty, "ComfRide: A Smartphone based System for Comfortable Public Transport Recommendation", 12th ACM Conference on Recommender Systems (ACM RecSys 2018), Vancouver, Canada. DOI:10.1145/3240323.3240359.

[12] **Surjya Ghosh**, Niloy Ganguly, Bivas Mitra, and Pradipta De, "Evaluating Effectiveness of Smartphone Typing as an Indicator of User Emotion", 7th International Conference on Affective Computing and Intelligent Interaction (ACII 2017), San Antonio, Texas, USA. DOI:10.1109/ACII.2017.8273592.

[13] **Surjya Ghosh**, Niloy Ganguly, Bivas Mitra, and Pradipta De, "TapSense: Combining Self-Report Patterns and Typing Characteristics for Smartphone based Emotion Detection", 19th International Conference on Human-Computer Interaction with Mobile Devices and Services (ACM MobileHCI 2017), Vienna, Austria. DOI:10.1145/3098279.3098564.

[14] Rohit Verma, **Surjya Ghosh**, Niloy Ganguly, Bivas Mitra, and Sandip Chakraborty, "Smartphone based Spatio-temporal Sensing for Annotated Transit Map Generation", 25th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL GIS 2017) California, USA. DOI:10.1145/3139958.3140005.

[15] **Surjya Ghosh**, Niloy Ganguly, Bivas Mitra, and Pradipta De, "Towards Designing an Intelligent Experience Sampling Method for Emotion Detection", 14th Annual IEEE Consumer Communications & Networking Conference (IEEE CCNC 2017), Las Vegas, USA. DOI:10.1109/CCNC.2017.7983143.

[16] **Surjya Ghosh**, "Emotion-aware Computing using Smartphone", 9th International Conference on COMmunication Systems & NETworkS (COMSNETS 2017, Graduate Forum), Bangalore, India. DOI:10.1109/COMSNETS.2017.7945464

[17] Rohit Verma, **Surjya Ghosh**, Aviral Shrivastava, Niloy Ganguly, Bivas Mitra, and Sandip Chakraborty, "Unsupervised Annotated City Traffic Map Generation", 24th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL GIS 2016) California, USA. DOI:10.1145/2996913.2996942.

[18] **Surjya Ghosh**, Vatsalya Chauhan, Niloy Ganguly, Bivas Mitra, and Pradipta De, "Impact of Experience Sampling Methods on Tap Pattern based Emotion Recognition", 4th ACM Workshop on Mobile Systems for Computational Social Science - MCSS (ACM UbiComp/ISWC.15 Adj) Osaka, Japan. DOI:10.1145/2800835.2804396.

AWARDS AND ACHIEVEMENTS

- Selected for 8th Heidelberg Laureate Forum 2020.
- Received Microsoft Research India Travel Grant for attending IUI 2019, MobileHCI 2017, UbiComp 2015.
- Received Student Travel Grant for attending IUI 2019, Mobicom 2018, and ACII 2017.
- Best poster award (3rd Place) at COMSNETS 2019.
- Received COMSNETS Travel Grant for attending COMSNETS 2017, 2018, 2019.
- Best paper award at IEEE ISCC Workshops - ICTS4eHealth 2018.
- Ranked 10th in merit panel of Assistant Professor at WBCSC in July 2016.
- Qualified in UGC-NET for Assistant Professor in Jun 2014.
- Received University Silver Medal for ranking 2nd in B.Tech.(Computer Science & Engineering), Vidyasagar University, India.

TEACHING EXPERIENCE

- Teaching Assistant, IIT Kharagpur, WB, India
  - Information Retrieval (Spring 2019)
  - Machine Learning (Spring 2018)
  - Social Computing (Autumn 2018)
  - Complex Networks (Spring 2017)
  - Smartphone Computing & Applications (Autumn 2017)
  - Operating Systems (Spring 2016)
  - Ubiquitous Computing (Autumn 2016, Autumn 2015)

Mentoring		
	• Sabrina Wirjopawiro, Master's student at TU Delft	Jan 2020 - to date
	– One paper under preparation.	
	• Shivam Goenka, Dual degree student at IIT Kharagpur	Jan 2019 - to date
	– One paper at ACII 2019, one paper under preparation.	
	• Kaustubh Hiware, Undergraduate student at IIT Kharagpur	Aug 2017 - Apr 2018
	– One paper at IUI 2019, one paper in IJHCS 2019.	
	• Sumit Sahu, Master's student at IIT Kharagpur	Aug 2016 - Apr 2017
	– One paper at COMSNETS 2019.	
	• Vatsalya Chauhan, Undergraduate student at IIT Kharagpur	Aug 2015 - Apr 2016
	– One paper at UbiComp Adj. 2015.	

INVITED TALKS

This list does not contain the conference talks.

• India HCI 2019, Hyderabad, India	Nov, 2019
• Cornell Tech, New York City, USA	Mar, 2019

SCIENTIFIC
COMMUNITY SERVICE

- Reviewer of IEEE Transactions on Multimedia (TMM) 2020.
- Reviewer of ACM CHI Late-breaking Works 2020, ACM MobileHCI 2020.
- Reviewer of AffCon workshop, co-located with AAAI 2019.
- TPC member of ACM S^3 workshop, in conjunction with Mobicom 2018.
- Student Volunteer at ACM IUI 2019.

REFERENCES

- **Prof. Pablo Cesar** Director, DIS Group, CWI Amsterdam, The Netherlands
    ⬜ https://www.pablocesar.me/ ✉ p.s.cesar@cwi.nl

- **Prof. Niloy Ganguly** Professor, Indian Institute of Technology Kharagpur, India
    ⬜ http://www.facweb.iitkgp.ac.in/~niloy/ ✉ niloy@cse.iitkgp.ernet.in

- **Dr. Bivas Mitra** Associate Professor, Indian Institute of Technology Kharagpur, India
    ⬜ https://cse.iitkgp.ac.in/~bivasm/ ✉ bivas@cse.iitkgp.ac.in

- **Dr. Pradipta De** Assistant Professor, Georgia Southern University, USA
    ⬜ https://pradiptade.site/ ✉ pde@georgiasouthern.edu

- **Dr. Abdallah El Ali** Assistant Professor, CWI Amsterdam, The Netherlands
    ⬜ https://abdoelali.com/ ✉ Abdallah.El.Ali@cwi.nl