

ANNUAL REPORT 2014

Computer Networks Group
Institute of Computer Science
Faculty of Mathematics and Computer Science
Georg-August-Universität Göttingen

COMPUTER NETWORKS GROUP
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Editor: Prof. Dr. Xiaoming Fu

ANNUAL REPORT 2014

Computer Networks Group

Introduction

Founded in April 2007, the Computer Networks Group is devoted to cutting-edge leading research and education programs in the field of network architectures, protocols and applications. This report series intends to review the most relevant and important research results and other achievements and activities performed by the Computer Networks Group. The present report is the seventh issue of this series, and summarizes those of the year of 2014.

Group Members

Dr. Xu Chen (Arizona State University) joined the NET group and started his Humboldt Scholar stay in May 2014. Federica Poltronieri joined the NET group as secretary in September 2014. Jie Li joined the NET group as visiting PhD student in October 2014. Prof. Wenzhong Li and Prof. Zhuzhong Li spent one-month visit each at NET group in July 2014, Bolei Zhang visited during July-Sept 2014 and Chao Wu started his 6-month visit in November 2014.

Dr. Konglin Zhu and Dr. Lei Jiao completed their PhD theses in February and July 2014, starting their new career (as assistant professor at BUPT, China and senior researcher at Bell Labs, Ireland, respectively) and continuing to serve as adjunct researchers with NET group. Dr. David Koll completed his thesis in November 2014 and started his CleanSky project technical coordinator role at NET group in September 2014.

Also, several master and bachelor student assistants worked on various projects and thesis work; they are an important part of the team.

By the end of year 2014, the research group comprises 1 professor, 4 senior researchers/postdoc fellows, 7 PhD students, 5 master students and several bachelor students. See Table 1 for detailed information.

Table 1: Member of Computer Networks Group (as of 31.12.2014):

Administrative staff	Head	Senior Researchers	Research assistants/PhD students	Adjunct researchers	Master students
Secretaries: A. Kadziora, F. Poltronieri System administrator: G. Krull Project manager (EU MobileCloud): L. Cui	Prof. Dr. X. Fu	Dr. M. Arumathurai, Dr. X. Chen, Dr. D. Koll, Dr. S. Sigg	E. Monticelli, H. Huang, Y. Zhang, N. Tao, J. Chen, H. Tschofenig (extern), L. Pu (jointly w/ Nankai U., China) J. Li (jointly w/ Northeastern U., China) L. Dai (co-supervise with M. Boos/Psychol. & K. Kurz/ Sociology) R. Xu, A. Stango (co-supervise with D. Farina/UMG)	Dr. Y. Chen, Dr. K. Zhu, Dr. L. Jiao, Dr. W. Du, Prof. Dr. M. Stiemerling, Prof. K.K. Ramakrishnan Visiting Researcher: C. Wu	E. Maiti, S. Weiland, S. Pujari, B. Schulbert, C. Rauterberg

Teaching and Supervision

During 2014 the Group has provided the following courses:

Lectures:

Computer Networks, 4 ECTS	WS2014/15
Machine Learning and Pervasive Computing, 5 ECTS	WS2014/15
Introduction to Software-Defined Networking, 5 ECTS	WS2014/15
Specialization Software-Defined Networking, 5 ECTS	WS2014/15
Computer Networks, 4 ECTS (exam only)	SS2014
Advanced Computer Networks, 6 ECTS	SS2014

*NOTE: WS – Winter Semester, SS – Summer Semester, * - only partly*

Exercise classes:

Computer Networks	WS2014/15
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Lab courses:

Practicum Advanced Networking, 6 ECTS	SS2014, WS2014/15
Practicum Networking Lab, 6 ECTS	SS2014, WS2014/15

Seminars:

Adv. Topics in Mobile Communications, 6 ECTS	SS2014
Adv. Topics in Computer Networking, 6 ECTS	WS2014/15
Internet Technologies, 4 ECTS	SS2014, WS2014/15
Advances in Mobile Applications and Mobile Cloud Computing, 4 ECTS	SS2014
Advanced Topics in Social Network and Big Data Methods, 5 ECTS	SS2014

Research Areas and Projects

The Computer Networks group is committed to explore innovative networking technologies and utilize its full potential, knowledge and experience in the analysis, design, and evaluation of emerging and future network technologies, systems, and applications. Its current main research areas include:

- Architectures, protocols, mechanisms and applications for cloud computing, data center networks and software-defined networks, including resource and service management, energy efficiency, data delivery, mobile cloud computing, congestion control and services. This has been conducted in collaboration with Microsoft Research, Deutsche Telekom, Alcatel-Lucent/Bell Labs, NEC, Nokia Solutions Networks, UC Riverside, U. Oregon, University of Pierre and Marie Curie (Paris 6), Technion – Israel Institute of Technology, Swedish Institute of Computer Science, BUPT, Fudan University, Tsinghua University, and Nanjing University etc.
- Internet multimedia, information-centric networking, transport and network measurement techniques, including congestion control, pub/sub architecture, disaster management, measurement, and related security mechanisms for supporting large-scale content delivery and other applications over the Internet. This area has been in collaboration with UC Riverside, UCLA, Columbia University, University of Liege, University College London, University of Rome “Tor Vergata”, Swedish Institute of Computer Science, KDDI, Panasonic, NEC, Bell Labs, Orange Labs, Osaka University, University of Tokyo, Waseda University, NICT, Fudan University, Tsinghua University, and Nanjing University, etc.

- Social networks/social computing, including socio-aware networking/computing infrastructure, mobile social networks, as well as social behavior studies and social influence, in collaboration with researchers from Göttingen (including sociologists, socio-psychologists, physicists and epidemiologists), nationally (MPI-DS, T-Labs, L3S/University of Hannover, University of Frankfurt) and internationally (University Oregon, University of Cambridge, Swedish Institute of Computer Science, Bell Labs, Nanjing University, Tsinghua University, etc.).
- Mobile computing, pervasive/social sensing and applications e.g., in smart cities and energy-efficient buildings, leveraging machine learning (in particular compressive sensing) and data mining techniques where appropriate, in cooperation with Uppsala University (Sweden), University of Liege (Belgium), University of Kent, Three UK (UK), Ericsson (Finland), UPMC (France), Hong Kong University of Science and Technology, Nankai University, Nanjing University (China), National Institute of Informatics (Japan), Karlsruhe Institute of Technology, etc.

Some funded projects in 2014 include:

- [GreenICN – Architectures and Applications of Green Information-Centric Networking](#), sponsored by EU FP7 EU-Japan ICT EU-Japan International Cooperation program (Coordinated by NET Group)
- [MobileCloud – Linking Sino-European Research Institutions in the Mobile Cloud Computing Era](#), sponsored by EU FP7 Marie Curie IRSES program (Coordinated by NET group)
- [CleanSky – Network for Cloud Computing Eco-System](#), sponsored by EU FP7 Marie Curie Initial Training Network program (Coordinated by NET group)
- [SWZ – Simulation Science Center](#), sponsored by State Lower Saxony and Volkswagen Foundation
- [Socially-Motivated Cooperative Device-to-Device Communications](#), sponsored by Humboldt Foundation
- Scalable Network Measurement, sponsored by DAAD Scholarship program
- Socially-Aware Information-Centric Networking, sponsored by CSC Scholarship program
- Mobile Cloud Computing, sponsored by CSC Scholarship program
- Mobile Social Networking, sponsored by CSC Scholarship program

Publications, Technical Reports and Theses

Papers in Peer-Reviewed Journals

1. Lei Jiao, Jun Li, Tianyin Xu, Wei Du, Xiaoming Fu, Optimizing Cost for Online Social Networks on Geo-Distributed Clouds, IEEE/ACM Transactions on Networking, DOI: 10.1109/TNET.2014.2359365, Oct 2014.
2. Konglin Zhu, Wenzhong Li, Xiaoming Fu, SMART: A Social and Mobile Aware Routing Strategy for Disruption Tolerant Networks, IEEE Transactions on Vehicular Technology, 63(7): 3423-3434, Sept. 2014.
3. Wei Du, Yongjun Liao, Narisu Tao, Pierre Geurts, Xiaoming Fu, Guy Leduc, Rating Network Paths for Locality-Aware Overlay Construction and Routing, IEEE/ACM Transactions on Networking, DOI: 10.1109/TNET.2014.2337371, July 2014.
4. Chao Wu, Yaoxue Zhang, Yuezhi Zhou, Xiaoming Fu, A Survey for the Development of Information-Centric Networking, Chinese Journal of Computers, <http://cjc.ict.ac.cn/online/bfpub/wc-2014716145036.pdf>, July 2014.
5. Konglin Zhu, Wenzhong Li, Xiaoming Fu, Jan Nagler, How do online social networks grow?, PLoS ONE, 9(6): e100023, doi:10.1371/journal.pone.0100023, PLoS, June 2014.
6. Dan Li, Hongze Zhao, Mingwei Xu, Xiaoming Fu, Revisiting the Design of Mega Data Centers: Considering Heterogeneity among Containers, IEEE/ACM Transactions on Networking, 22(5): 1503-1515, May 2014.

7. Stephan Sigg. A fast binary feedback-based distributed adaptive carrier synchronisation for transmission among clusters of disconnected IoT nodes in smart spaces, *Ad Hoc Networks*, 16: 120-130, Elsevier, May 2014.
8. Konglin Zhu, Wenzhong Li, Xiaoming Fu, Rethinking Routing Information in Mobile Social Networks: Location-based or Social-based?, *Computer Communications*, 42: 24-37, Elsevier, Apr. 2014.
9. Stephan Sigg, Markus Scholz, Shuyu Shi, Yusheng Ji and Michael Beigl. RF-sensing of activities from non-cooperative subjects in device-free recognition systems using ambient and local signals, *IEEE Transactions on Mobile Computing*, 13(4): 907-920, Feb 2014.
10. Shuyu Shi, Stephan Sigg, Wei Zhao, and Yusheng Ji. Monitoring of Attention from Ambient FM-radio Signals, *IEEE Pervasive Computing*, 13(1): 30-36, Jan-Mar 2014.
11. Haomin Yang, Yaoyue Zhang, Yuezhi Zhou, Xiaoming Fu, Hao Liu, Athanasios V. Vasilakos, Provably Secure Three-Party Authenticated Key Agreement Protocol Using Smart Cards, *Computer Networks*, 58(15): 29-38, Elsevier, Jan. 2014.
12. Stephan Sigg, Shuyu Shi and Yusheng Ji, Teach your WiFi-Device: Recognise Simultaneous Activities and Gestures from Time-Domain RF-Features, *International Journal on Ambient Intelligence and Computing*, 6(1): 20-34, IGI, Jan. 2014

Papers in Peer-Reviewed International Conferences and Workshops

13. David Koll, Jun Li, Xiaoming Fu, SOUP: An Online Social Network By The People, For The People, 15th Annual ACM/IFIP/USENIX Middleware Conference (Middleware 2014), Bordeaux, France, December 2014. (Acceptance rate: 18%)
14. Mayutan Arumathurai, Jiachen Chen, Edo Monticelli, Xiaoming Fu, K. K. Ramakrishnan, Exploiting ICN for Flexible Management of Software-Defined Networks, 1st ACM Conference on Information-Centric Networking (ICN 2014), Paris, France, September 2014. (Acceptance rate: 17%) (Best Paper Award)
15. Stephan Sigg, Xiaoming Fu, Social Opportunistic Sensing and Social Centric Networking – Enabling technology for Smart Cities, ACM International Workshop on Wireless and Mobile Technologies for Smart Cities (WiMobCity 2014), in conjunction with MobiHoc 2014, Philadelphia, PA, USA, pages 83-90, Aug 2014.
16. David Koll, Jun Li, Joshua Stein, Xiaoming Fu, On the State of OSN-based Sybil Defenses, IFIP Networking 2014, Trondheim, Norway, IEEE, June 2014. (Acceptance rate: 25%)
17. Song Li, Yangfan Zhou, Lei Jiao, Xinya Yan, Xin Wang, Michael R. Lyu, Delay-Aware Cost Optimization for Dynamic Resource Provisioning in Hybrid Clouds, The 21st IEEE International Conference on Web Services (ICWS 2014), Alaska, USA, June 2014. (Acceptance rate: 20%)
18. Edo Monticelli, Benno Schulbert, Mayutan Arumathurai, Xiaoming Fu, K. K. Ramakrishnan, An Information Centric Approach for Communications in Disaster Situations, The 20th IEEE International Workshop on Local and Metropolitan Area Networks (LANMAN 2014), May 2014.
19. Yuan Zhang, Xiaoming Fu, K. K. Ramakrishnan, Fine-Grained Multi-Resource Scheduling in Cloud Datacenters, The 20th IEEE International Workshop on Local and Metropolitan Area Networks (LANMAN 2014), May 2014.
20. Farshid Hassani Bijarbooneh, Wei Du, Edith Ngai, Xiaoming Fu, Energy-Efficient Sensor Selection for Data Quality and Load Balancing in Wireless Sensor Networks, IEEE/ACM International Symposium on Quality of Service (IWQoS 2014), Hong Kong, pages 338-343, IEEE, May 2014.
21. Jiyin He, Kai Kunze, Christoph Lofi, Sanjay K. Madria and Stephan Sigg. Towards Mobile Sensor-Aware Crowdsourcing: Architecture, Opportunities and Challenges, UnCrowd 2014: DASFAA Workshop on Uncertain and Crowdsourced Data, Bali, Indonesia, Apr. 2014
22. Lei Jiao, Jun Li, Wei Du, Xiaoming Fu, Multi-Objective Data Placement for Multi-Cloud Socially Aware Services, IEEE INFOCOM 2014, Toronto, Canada, April 2014. (Acceptance rate: 320/1645=19.4%)
23. Hao Liu, Yaoyue Zhang, Yuezhi Zhou, Di Zhang, Xiaoming Fu, K. K. Ramakrishnan, Mining Checkins From Location-sharing Services for Client-independent IP Geolocation, IEEE INFOCOM 2014, Toronto, Canada, April 2014. (Acceptance rate: 320/1645=19.4%)
24. Hong Huang, Jie Tang, Sen Wu, Lu Liu, Xiaoming Fu, Mining Triadic Closure Patterns in Social Networks, 23rd International World Wide Web Conference (WWW 2014), Web Science Track, Seoul, Korea, ACM, April 2014. (Acceptance rate: 25%)

25. Stephan Sigg, Ulf Blanke and Gerhard Troester. The Telepathic Phone: Frictionless Activity Recognition from WiFi-RSSI, IEEE International Conference on Pervasive Computing and Communications (PerCom), Budapest, Hungary, March 2014. (Acceptance rate: 14%)

Extended Abstracts and Demos

26. Christoph Rauterberg, Matthias Velten, Stephan Sigg, Xiaoming Fu. Simply Use the Force. IEEE/KuVS NetSys 2015, demo session, March 2015.
27. Edo Monticelli, Mayutan Arumaithurai, Xiaoming Fu, Ioannis Psaras, K. K. Ramakrishnan, An Information Centric Approach for Communications in Disaster Situations, IEEE/KuVS NetSys PhD Forum, March 2015.
28. David Koll, Xiaoming Fu, Jun Li, SOUP: An Online Social Network By The People, For The People, ACM SIGCOMM 2014, demo session, Chicago, IL, August 2014.
29. Hong Huang, Jie Tang, Jarder Luo, Sen Wu, Lu Liu, Xiaoming Fu, Mining Triadic Closure Patterns in Social Networks (extended abstract), Interdisziplinäre Tagung – Dynamiken räumlicher Beziehungen – Theorien und Anwendungen geographischer und soziologischer Netzwerkforschung, Darmstadt, Germany, June 2014.

Technical Reports

30. Jiachen Chen, Mayutan Arumaithurai, Xiaoming Fu, K.K. Ramakrishnan, SAID: A Control Protocol for Reliable and Efficient Data Dissemination in ICN, Technical Report, Institute of Computer Science, University of Göttingen, Göttingen, Germany, December 2014.

PhD Dissertations

31. David Koll, Towards a Robust and Secure Decentralized Online Social Network, Faculty of Mathematics and Computer Science, University of Göttingen, November 2014
32. Lei Jiao, Online Social Network Data Placement over Clouds, Faculty of Mathematics and Computer Science, University of Göttingen, July 2014
33. Konglin Zhu, Social-based Data Routing Strategies in Delay Tolerant Networks. Faculty of Mathematics and Computer Science, University of Göttingen, Feb 2014

Scientific Contacts

Incoming researcher visits

Incoming visitors	Institution (from)	Detailed information	Date
Chao Wu	Tsinghua University, China	As a MobileCloud ESR visiting for 6 months	Nov 2014-Apr 2015
Prof. Jun Li	University of Oregon, USA	Visiting NET group for 3 days, attending David Koll's PhD defense and giving an invited talk "The Store-and-Flood Distributed Reflective Denial of Service Attack" at Computer Science colloquium	Nov 2014
Rafael Weingartner	Federal University of Santa Catarina, Brazil	Visiting NET group and giving a talk	Nov 2014
Dr. Zhanpeng Huang	Hong Kong University of Science and Technology	Visiting NET group for 10 days and giving a talk "Cloud computing research at HKUST-DT Systems and Media Lab"	Oct 2014
Prof. Marianne	Aarhus University, Denmark	Visiting UGOE and Göttingen Centre for Digital Humanities (GCDH), discussed potential collaborations including with	Oct 2014

Huang		NET group/IFI	
Prof. Junyu Niu	Fudan University	As a MobileCloud ER visitor, visiting NET group and giving a colloquium talk "Government Performance Management and Informatization"	Aug 2014
Dr. Alessandra Sala	Bell Labs Ireland	Visiting NET group for 2 days, colloquium talk "Inferring application performance regardless data completeness"	July 2014
Prof. Wenzhong Li, Prof. Zhuzhong Qian, Bolei Zhang	Nanjing University, China	Visiting NET group for 1-3 months, colloquium talks "Performance Scalability in Clouds with Virtualization" (Prof. Qian), "How do online social networks grow?" (Prof. Li) and "Influence Maximization in Online Social Networks" (B. Zhang)	July-Aug/Sept 2014
Rüdiger Geib	Deutsche Telekom	Visiting NET group and giving an invited talk "Segment Routing / SPRING - an evolution to carrier backbone routing" at Computer Science colloquium	May 2014
Assist. Prof. Mo Li	National Technological University, Singapore	Visiting NET group and giving an invited talk "Ambient Sensing and Intelligence" at Computer Science Colloquium	Apr 2014
Prof. Mario Gerla (IEEE Fellow)	UCLA, USA	Visiting NET group for 2 days, attending Konglin Zhu's PhD defense and giving an invited talk "Vehicular Cloud Service" at Computer Science colloquium	Feb 2014

Outgoing research visits

Outgoing visitors	Institution visited	Detailed information	Date
X. Fu	University of Pierre and Marie Curie / Paris 6, France	9 days research visit (host: Assoc. Prof. Stefano Secci), invited talk "SOUP: An Online Social Network By The People, For The People"	Dec 2014
S. Sigg	Johannes Kepler University of Linz, Austria	Invited talk and participation in Mobile security symposium	Dec 2014
X. Fu	University of Kentucky, USA	3-day visit at Prof. Ken Calvert's lab, invited talk "SOUP: An Online Social Network By The People, For The People"	Oct 2014
X. Fu	Dublin City University, Ireland	Visiting Dr. Xiaojun Wang's lab	Oct 2014
X. Chen	Chinese University of Hong Kong, Sun Yat-sen University, China	Research visit for 2 weeks	Oct-Nov 2014
H. Huang	NEC Europe Labs, Heidelberg, Germany	3-month research stay/internship	Sept-Nov 2014
J. Chen	Fudan University, China	2-month research visit (host: Prof. Junyu Niu)	Sept-Nov 2014
Y. Zhang	Tsinghua University, BUPT, Nanjing University	2-month MobileCloud visit. Invited talks "Fine-Grained Multi-Resource Scheduling in Cloud Datacenters", "To offload or not to offload? An efficient code partition algorithm for mobile cloud computing"	Aug-Oct 2014

X. Fu	Tsinghua University, BUPT, Beihang University, Huazhong University of Science and Technology, Wuhan University, Nanjing University, China	MobileCloud and associated research visits (hosts: Profs. Yuezhi Zhou, Jarder Luo, Dan Li; Lin Zhang; Jinpeng Huai, Jianxin Li; Hai Jin, Hanhua Chen; Ruimin Hu; Wenzhong Li, Sanglu Lu, Zhi-Hua Zhou, Zhiwei Wu)	Aug 2014
L. Jiao	IBM Watson Research, USA; Bell Labs Ireland	Invited talk “Cost Optimization for Online Social Networks on Geo-Distributed Clouds”	May, July 2014
X. Fu	Nanjing University, Southeast University, Fudan University, Shanghai Jiao Tong University, BUPT, CAS-ICT, Tsinghua University, China	MobileCloud research visit and IEEE DLT (Profs. Jian Lu, Wenzhong Li, Zhuzhong Qian, Sanglu Lu, Zhi-Hua Zhou, Zhiwei Wu, Xuwei Zhai, Xueqin Min, Yanqing Lu, Jin Wang; Junzhou Luo; Xin Wang; Xinwan Li, Xiaohua Tian, Xinbing Wang; Jun Guo, Lin Zhang, Xiaofeng Tao; Yiqing Zhou, Xue Han; Yuezhi Zhou, Jie Tang, Dan Li, Jarder Luo)	Apr-May 2014
S. Sigg	University of Helsinki, Finland	Research visit for 3 months (host: Prof. Sasu Tarkoma)	Apr-Aug 2014
M. Arumaithurai	Uppsala University, Sweden	1-month DAAD-U4 visit (host: Prof. Edith Ngai)	Apr, Sept 2014
K. Zhu	BUPT & Nanjing University, China	MobileCloud research visit at BUPT (host: Prof. Lin Zhang) and Nanjing University (host: Prof. Wenzhong Li)	Apr 2014
X. Fu	Uppsala University, Sweden	1-month DAAD-U4 visit (host: Prof. Edith Ngai)	Mar 2014
D. Koll	Uppsala University, Sweden	2-month DAAD-U4 visit (host: Prof. Edith Ngai)	Feb-Mar 2014

Conference and event participations and presentations

Participant	Conference	Detailed information	Date
D. Koll, X. Fu	ACM/USENIX/IFIP Middleware 2014 , Bordeaux, France	Attending the conference and presenting a paper	Dec 2014
S. Sigg	Mobiquitous 2014 , London, UK	Workshops Chair	Dec 2014
X. Fu, X. Chen, C. Wu, Y. Zhang	NoF 2014 , Paris, France	Attending the MobileCloud workshop and presenting talks; chairing a session and the MobileCloud project meeting (X. Fu)	Dec 2014
H. Huang, N. Tao	Bell Labs Future X Days , Stuttgart	Attending the event and presenting posters	Nov 2014
X. Fu	IEEE ICNP 2014 , Raleigh, NC, USA	Attending the conference, chaired a session and served as a panelist for the main conference and student workshop	Oct 2014
X. Fu, H. Huang	ACM COSN 2014 , Dublin, Ireland	Presenting a poster (H. Huang) and chairing a session (X. Fu)	Oct 2014
X. Fu, M. Arumaithurai	ACM ICN 2014 , Paris, France	Attending the conference and presenting a paper (winner of the Best Paper Award)	Sept 2014

D. Koll	ACM SIGCOMM 2014 , Chicago, USA	Attending the conference and presenting a demo	Aug 2014
S. Sigg	ACM MobiHoc 2014 , Philadelphia, USA	Presenting a paper “Social Opportunistic Sensing and Social Centric Networking – Enabling technology for Smart Cities” at WiMobCity 2014 workshop and chaired a session	Aug 2014
X. Fu	Forum on Future Computing, Wuhan, China	Invited speech “Mobile Cloud Computing”	Aug 2014
X. Fu, X. Chen, D. Koll, S. Sigg, L. Jiao, H. Huang, M. Arumaithurai	Nanjing-Göttingen Workshop on Social Computing , Göttingen	Reexamined each’s recent efforts/results and brainstormed several interdisciplinary topics with different fields (CS, healthcare, sociology, psychology, physics) related to social network research	July 2014
X. Fu	Dagstuhl Seminar on Information-Centric Networking 3	Presented GreenICN project and discussed various issues on ICN	July 2014
X. Fu	Theorien und Anwendungen geographischer und soziologischer Netzwerkforschun , Frankfurt am Main	Attending the workshop and presented a talk	June 2014
S. Sigg	Intel Workshop on Cyberphysical and Mobile Security 2014 , Darmstadt	Attending the workshop and collaboration	June 2014
D. Koll, X. Fu	IFIP Networking 2014 , Trondheim, Norway	Attending the conference, presenting a paper (D. Koll) and chairing a session (X. Fu)	May 2014
K.K. Ramakrishnan	IEEE LANMAN 2014 , Reno, NV, USA	Presenting two papers	May 2014
X. Fu	GCDH’s WebMontag	Invited presentation “Mobile Cloud Computing, Cloud Computing and Their Potential Uses for Digital Humanities”	Apr 2014
L. Jiao	IEEE INFOCOM 2014 , Toronto, Canada	Presenting a paper	Apr 2014
S. Sigg	IEEE PerCom 2014 , Budapest, Hungary	Presenting a paper	Mar 2014
K.K. Ramakrishnan	IEEE COMSNETS 2014 , Bangalore, India	Serving as a panelist (panel “Telling gold from pyrite: Promising research direction or hype?”)	Jan 2014

Project meetings*

Participant	Host institution/location	Detailed information	Date
X. Fu, X. Chen, Y. Zhang	UPMC, Paris, France	MobileCloud second workshop and project meeting	Dec 2014

M. Arumaithurai, K.K. Ramakrishnan	UOS, Osaka, Japan	GreenICN EU-JP plenary meeting	Nov 2014
D. Koll, M. Arumaithurai, X. Fu, F. Poltronieri	NET Group, Göttingen	CleanSky project kickoff meeting	Oct 2014
X. Fu, W. Li	NET Group and Institute of Psychology, Göttingen	Meeting Prof. M. Boos and Dr. J. Nagler for interdisciplinary projects	July 2014
M. Arumaithurai, K.K. Ramakrishnan	EU, Brussels, Belgium	GreenICN 1 st annual review meeting	May 2014
X. Fu	NJU, Nanjing, China	MobileCloud project kickoff meeting	Apr 2014
M. Arumaithurai, KK Ramakrishnan	Rome, Italy	GreenICN EU consortium meetings	Jan, Sept 2014

* Note: project meetings held as teleconferences only are not included here.

News Press Releases

Source	Detailed information	Date/Edition
Global Communications Newsletter, IEEE Communications Society	IEEE Distinguished Lecturer Tour of Xiaoming Fu in Shanghai and Beijing, China, May 2014	Nov 2014
Univ Göttingen press news	Besserer Service von Drittanbietern im Internet	09.12.2014
Univ Göttingen press news	Innovative Ideen im „Cloud Computing“ entwickeln	22.09.2014
Univ Göttingen press news	Forschungsgruppe Rechnernetze erhält zweiten Humboldt-Stipendiaten	18.07.2014
Univ Göttingen press news	Optimierung der mobilen Nutzung von Cloud-Ressourcen	29.01.2014
Göttingen International Newsletter	Start of the EU-Project CleanSky ITN	No. 2014/3
Göttingen International Newsletter	International Conference on Network Protocols took place in Göttingen	No. 2014/2
Göttingen International Newsletter	EU project on Mobile Cloud Computing Started	No. 2014/1
Saarbrücker Zeitung	WiFi activity recognition	Sept 2014
Radio eins rbb	A new type of Surveillance	Apr 2014
Zeit Online	Radio signals for activity recognition	Mar 2014
Golem.de	WLAN as environmental sensor	Mar 2014
Heise.de	Gesture recognition on mobile phones	Mar 2014

Awards

- Humboldt Fellowship (Xu Chen)
- IEEE Communications Society Distinguished Lecturer (Xiaoming Fu) 2014-2015
- ACM ICN 2014 Best Paper Award (Mayutan Arumaithurai, Jiachen Chen, Edo Monticelli, Xiaoming Fu, K. K.

Ramakrishnan)

- Göttingen International Travel Grant for attending IEEE INFOCOM 2014 (Lei Jiao)
- Göttingen International Travel Grant, and Google travel grant, for attending WWW 2014 (Hong Huang)
- ACM COSN 2014 Student Travel Grant (Hong Huang)
- ACM SIGCOMM 2014 Student Travel Grant (David Koll)

Professional Services (X. Fu unless noted)

University Services

- International Officer - Computer Science, Faculty of Mathematics & Computer Science, University of Göttingen
- Substitution Member of Faculty Board, Faculty of Mathematics and Computer Science, University of Göttingen
- Board member, Institute of Computer Science, University of Göttingen
- Program committee board of International Master/PhD program “Internet Technology and Information Systems (ITIS)”, University of Göttingen
- Participant of Doctoral program “PhD in Computer Science” (PCS) program, University of Göttingen
- Examination board Master’s program of “Social Sciences/Sociology”, University of Göttingen
- Coordinator of Planet-Lab membership for University of Göttingen

Elected and Appointed Positions

- Chair, Awards Committee of the Internet Technical Committee (ITC) of IEEE Communications Society (COMSOC) and of the Internet Society (ISOC)
- Changjiang Scholar Visiting Professorship, Ministry of Education, China
- “111” Guest Professor, Nanjing University, China
- DAAD Visiting Professor, Uppsala University, Sweden
- Vice Director, Center for Social Network Research, Tsinghua University, Beijing, China
- Proposal Evaluator, EU Horizon 2020 Call EE-11 (ICT Solutions for Energy-Efficient Buildings)
- Proposal Evaluator, Research Grant Council of Hong Kong
- Member of Internet Engineering Steering Group (IESG) and Transport Area Director – Martin Stiernerling

Conference organization

- Steering Committee Chair, IEEE Global Internet Symposium (GI) 2014
- Steering Committee Member, IEEE INFOCOM Named Oriented Mobility (NOM) Workshop
- Steering Committee Ex-Officer, ACM International Workshop on Mobility in the Evolving Internet Architecture (MobiArch)
- Workshops Chair, Mobiquitous 2014 (Stephan Sigg)

- Workshop Co-Chair, AwareCast 2014 – 3rd Workshop on recent advances in behavior prediction and pro-active pervasive computing, in conjunction with UbiComp 2014 (Stephan Sigg)
- Workshop Co-organiser, AI@IE – 3rd Workshop on AI Problems and Approaches for Intelligent Environments, in conjunction with ECAI 2014 (Stephan Sigg)
- Publicity Chair, NetGCoop 2014 (Xu Chen)

Technical Program Committees

- TPC Member, ACM ICN 2014 (Mayutan Arumaithurai)
- TPC Member, IEEE INFOCOM NOM Workshop 2014 (Mayutan Arumaithurai)
- TPC Member, IEEE ICNP 2014
- TPC Member, ACM COSN 2014
- TPC Member, IEEE/ACM IWQoS 2014
- TPC Member, IFIP Networking 2014
- TPC Member, IEEE GLOBECOM 2014 SAC Track on Cloud Networking
- TPC Member, Elsevier Computer Communications (COMCOM) (Mayutan Arumaithurai, Stephan Sigg)
- TPC Member, COMSNETS Poster Session 2014 (Mayutan Arumaithurai)
- TPC Member, QSHINE 2014 (Mayutan Arumaithurai)
- TPC Member, IEEE WCNC 2014 (Xu Chen)
- TPC Member, IEEE GLOBECOM 2014 (Xu Chen)
- TPC Member, IEEE MCC 2014 – IEEE INFOCOM 2014 Workshop on Mobile Cloud Computing (Xu Chen)
- TPC Member, ANT 2014 (Xu Chen)
- TPC Member, FNC 2014 - 9th International Conference on Future Networks and Communications (Xu Chen)

Journal Editorship

- Technical Editor, IEEE Communications Magazine
- Associate Editor, IEEE Transactions on Network and Service Management
- Area Editor, Elsevier Computer Networks Journal
- Area Editor, Elsevier Computer Communications Journal
- Associate Editor, Springer Networking Science Journal
- Associate Editor, EURASIP Journal on Wireless Communications and Networking (Xu Chen)
- Guest Co-Editor, International Journal of Communication Systems, Special Issue on Mobile Internet: Content, Security and Terminal
- Guest Co-Editor, IEEE Communications Magazine, Feature Topic on Mobile Cloud Computing
- Guest Co-Editor, Computer Communications, Special Issue on Online Social Networks