

Mahanth Gowda

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RESEARCH INTERESTS	Wireless Networking, Mobile and Wearable Computing, Drones and Cyber Physical Systems, Internet of Things (IoT), Applications of Machine Learning
EDUCATION	<ul style="list-style-type: none">• University of Illinois at Urbana Champaign (UIUC) <i>GPA 4.0</i> Ph.D., Computer Science, 2013 - 2017 (<i>Expected</i>) Advisor: Romit Roy Choudhury• Duke University, <i>GPA 4.0</i> M.S., Computer Science, 2011 - 2013• Indian Institute of Technology, (IIT) BHU, <i>Rank 2 in 40</i> B.Tech., Computer Science, 2006 - 2010
EXPERIENCE	<ul style="list-style-type: none">• Microsoft Research, Bangalore, India May - Aug 2012 MAC design for wide area wireless networks.• Microsoft Research, Cambridge, UK May - Aug 2013 Programming language for rapid wireless prototyping.• IBM T J. Watson Research Center, Yorktown Heights, NY May - Aug 2015 Differential GPS for drones.• Intel, New Devices Group, Santa Clara, CA May - Aug 2016 Wearable analytics for sports.
PUBLICATIONS	<ul style="list-style-type: none">• Bringing IoT to Sports Analytics. Mahanth Gowda, Ashutosh Dhekne, Sheng Shen, Romit Roy Choudhury et al., <i>NSDI 2017</i> <i>Second highest rated submission</i> (among 255 papers)• Tracking Drone Orientation with Multiple GPS Receivers. Mahanth Gowda, Justin Manweiler, Ashutosh Dhekne, Romit Roy Choudhury et al., <i>ACM MOBICOM 2016</i>• The Case for Robotic Wireless Networks. Mahanth Gowda, Ashutosh Dhekne, Romit Roy Choudhury. <i>WWW 2016</i>• Compressing Backoff in CSMA Networks. Mahanth Gowda, Nirupam Roy, Romit Roy Choudhury, Srihari Nelakuditi. <i>IEEE ICNP 2016</i>• Ripple: Communicating through Physical Vibrations. Nirupam Roy, Mahanth Gowda, Romit Roy Choudhury. <i>NSDI 2015</i>• Ziria: An optimizing compiler for wireless PHY programming. Mahanth Gowda, Gordon Stewart (Co-primary), Geoffrey Mainland et al., <i>ASPLOS 2015</i>

- Cooperative Packet Recovery in Enterprise WLANs.
Mahanth Gowda, Souvik Sen, Roy Choudhury and Sung-Ju Lee.
IEEE INFOCOM 2013
- Extending Cell Tower Coverage through Drones.
Ashutosh Dhekne, **Mahanth Gowda**, and Romit Roy Choudhury.
ACM HOTMOBILE 2017
- Infrastructure Mobility: A What-if Analysis.
Mahanth Gowda, Nirupam Roy, Romit Roy Choudhury.
ACM HOTNETS 2014
- Backing out of Linear Backoff in Wireless Networks.
Mahanth Gowda, Nirupam Roy, Romit Roy Choudhury, Srihari Nelakuditi.
ACM HOTWIRELESS 2014
- The Case for Psychological Computing.
Xuan Bao, **Mahanth Gowda**, Ratul Mahajan, Romit Roy Choudhury.
ACM HOTMOBILE 2013

TECHNICAL
REPORTS/OTHER
PAPERS

- Integrating GLONASS with GPS for drone orientation tracking.
Mahanth Gowda, Justin Manweiler, Ashutosh Dhekne, Romit Roy Choudhury et al.,
COMSNETS 2017 (Invited Paper)
- WiFi-XL: Extending WiFi to Wide Areas in White Spaces.
Apurv Bhartia, **Mahanth Gowda**, Krishna Chintalapudi, Bozidar Radunovic et al.,
Technical Report, 2014.
- 802.11a/g PHY implementation in Blink, domain-specific language for wireless programming
Gordon Stewart, **Mahanth Gowda**, Geoffrey Mainland, Bozidar Radunovic et al.,
ACM SIGCOMM SRIF, 2014.

SELECTED
POSTERS

- Poster: Ziria Language for Rapid Prototyping of Wireless PHY.
Mahanth Gowda, Gordon Stewart, Geoffrey Mainland, Bozidar Radunovic et al.,
MobiCom, 2014.
- Poster: Cell Tower Extension through Drones.
Ashutosh Dhekne, **Mahanth Gowda**, and Romit Roy Choudhury
MobiCom, 2016.

AWARDS

- Travel grants: MobiCom 2012, 2014, 2016
- Runners Up, ACM Student Research Competition, MobiCom 2016
- IIT Varanasi medal for 1st place in B.Tech-IV exam 2010

INVITED TALK

- Bringing differential GPS to drones, HotWireless workshop, NYC, NY Oct 2016

PATENT

- Acceleration of real time computer vision processing on UAVs through GPS attitude estimation
Patent pending. US 20170254906 A1
- Communicating through physical vibration
Patent pending. US 20160119168 A1

TEACHING EXPERIENCE	• TA, CS 438, Communication Networks, UIUC	Fall 2015
	• TA, CS 498rc, Smartphone Computing and Applications, UIUC	Spring 2015
	• TA, CPS 215, Wireless Networking and Mobile Computing, Duke	Spring 2012
	• TA, CPS 230, Discrete Mathematics for Computer Science, Duke	Fall 2012
	• Guest Lecturer, CS 498rc, Smartphone Computing and Applications	Fall 2016
	• Guest Lecturer, ECE 598 HH, Wireless Networks and Mobile Systems	Fall 2016
	• Guest Lecturer, CPS 230, Discrete Mathematics for Computer Science	Fall 2012
	• Guest Lecturer, ECE 486, Wireless Communication Systems	Fall 2012

SERVICE	• Reviewer IEEE Transactions on Mobile Computing ACM/IEEE Transactions on Networking ACM HotNets, 2014 INFOCOM, 2015
	• TPC Member ACM MobiCom S3, 2015 ACM MobiCom mmNets, 2017