APPLICATION PACKAGE
of

Prasant Mohapatra

for the position of

Provost and Executive Vice President for Academic Affairs
University of South Florida

CONTENTS:

2. EDUCATION AND PROFESSIONAL EXPERIENCE

2018 --	Vice Chancellor for Research, University of California, Davis
2016 -- 2018	Dean of Graduate Studies Vice-Provost of Graduate Education University of California, Davis
2014 -- 2016	Associate Chancellor, University of California, Davis
2013 -- 2014	Interim Vice-Provost and CIO, University of California, Davis, CA
2007 -- 2013	Chair, Computer Science Department, University of California, Davis, CA
2009 -- 2013	Tim Bucher Family Endowed Chair, University of California, Davis, CA
2019 --	Distinguished Professor, Computer Science Department, University of California, Davis, CA
2003 -- 2018	Professor, Computer Science Department, University of California, Davis, CA
2012 – 2013	World Class University (WCU) Visiting Professor, KAIST, South Korea
2006 - 2008	Director, Center for Future Information Technology (CFIT) UC Davis
Jun-Aug. 2008	Visiting Professor, Yonsei University, South Korea
2004 -- 2007	Chair, Graduate Group in Computer Science University of California, Davis, CA
Nov-Dec., 2004	Visiting Researcher, National ICT Australia (NICTA), Sydney, Australia
July-Oct., 2004	Visiting Scientist, Institute for Infocomm Research (I2R), Singapore
2001 -- 2003	Associate Professor, Computer Science Department, University of California, Davis, CA
1999 – 2001	Associate Professor, Computer Science & Engineering Department Michigan State University, East Lansing, MI
May-Aug, 2000	Visiting Professor, Intel Corporation, Beaverton, Oregon

1998-1999	Associate Professor, Electrical and Computer Engineering Department Iowa State University, Ames, IA 50011
May-July, 1998	Visiting Scientist, Panasonic Information and Networking Technologies Laboratory, Panasonic Technologies Inc., Princeton, New Jersey
1993-1998	Assistant Professor, Electrical and Computer Engineering Department Iowa State University, Ames, IA 50011

EDUCATION:

Ph.D., Computer Engineering	Pennsylvania State University, University Park, PA	1993
M. S., Mathematics	University of Rhode Island, RI	1989
B. S., Electrical Engineering	National Institute of Technology, Rourkela, India	1987

LEADERSHIP TRAINING:

Berkeley Executive Leadership Program, UC Berkeley, 2018
Provost Leadership Development Program, UC Davis, 2012

3. HONORS AND AWARDS

- Fellow of AAAS, 2013
- Fellow of the IEEE, 2010
- Distinguished Professor of UC Davis, 2019
- Certificate of Recognition for Research Response to Community Crisis, APLU, 2021.
- Outstanding Engineering Alumni Award, Pennsylvania State University, 2008
- Outstanding Engineering Faculty Research Award, College of Engineering, UC Davis, 2011.
- Distinguished Alumnus Award, National Institute of Technology, Rourkela, India, 2015
- Biju Patnaik Lifetime Scientific Excellence Award, Government of Odisha, India, 2015
- HP Labs Innovation Award, 2011, 2012, 2013
- Editor-in-Chief, IEEE Transactions on Mobile Computing, 2014-17
- Paper published in ICCD-2000 was selected among the four most influential work during the first 30 years of ICCD conference (A Retrospective presented at the 30th ICCD-2012)
- Best Paper Awards:
    - IEEE CNS, 2014 (Best Paper Runner Up)
    - IFIP Networking, 2014
    - ACM BodyNets, 2013
    - IEEE ICCCN, 2013
    - International Symposium on Wireless Personal Multimedia Communications, 2011.
    - IEEE Wireless Mobile Computing (WiMob) Conference, 2009
- World Class University (WCU) Visiting Professor, KAIST, Korea, 2012-13
- Mentor, Award for Excellence in Postdoctoral Research, 2015 (Dr. Parth Pathak).
- Mentor, Award for Excellence in Postdoctoral Research, 2012 (Dr. Amit Pande).
- Mentor, Award for Excellence in Postdoctoral Research, 2011 (Dr. Kai Zeng).
- Advisor, Best Graduate Researcher Award, Computer Science Department, UC Davis, 2013 (Student: Xinlei Wang)
- Advisor, Best Graduate Researcher Award, Computer Science Department, UC Davis, 2012 (Student: An Chan)
- Advisor, Best Doctoral Dissertation Award from the College of Engineering, 2007 (Student: Chao Gui)
- Outstanding Graduate Research Award, Pennsylvania State University, 1993

4. ACADEMIC LEADERSHIP AND ADMINISTRATION EXPERIENCE:

I have had a long career in academic leadership and administration while maintaining my scholarly activities related to research, education, and outreach activities. I have served in several leadership positions spanning, department chair, dean, vice provost, and vice chancellor. These roles provided me valuable insights and experiences related to academic excellence, personnel issues, recruitments, diversity and inclusion, financial oversight and planning, and strategic visioning. Some of the specific experiences and accomplishments are highlighted in this section.

- **Member of Chancellor Leadership Council (CLC) and Provost Leadership Council (PLC), UC Davis**

   The CLC comprises of the Chancellor and Vice Chancellors and meets weekly to address all aspects of the administration of the university. Serving in this council has exposed me to a multitude of broad challenges ranging from student and staff issues, outward communications, branding, budget, governmental relations, development efforts and various compliance and legal issues. PLC comprises of the Provost, all Deans, Vice Provosts, and the Vice Chancellor for Research. I gained very valuable experience in this group for the past 7 years on issues related to faculty recruitment and development, curriculum and new program development, all academic aspects, and budgetary issues. All important decisions and significant initiatives are decided and planned in these councils.

- **Campus Leadership in Time of Need**

   I want to highlight two roles that I have played recently at the senior leadership level of the campus. During the current pandemic, I was a part of a very small group in senior leadership that worked with the Chancellor in making difficult and challenging decisions in a timely manner. We had to address issues related to instruction, research, staff and faculty issues, administration, facilities, student housing, and overall campus operations. All these issues were addressed in the context of the uncertain future of budget and other resources. Transparency in our decisions and effective communication was of paramount importance. I played a significant and leading role in all these activities.

   During the last few years, our campus explored several budget models and annually we re-evaluate and re-calibrate our approach based on the impact and strategies. To address the complex issues of budget model, the Provost created a small committee – Budget Framework Advisory Committee – and I am a member of that committee. We take deeper dives into the campus budgetary issues and create a framework that is transparent and take in forward in communicating effectively with the Deans. Serving on this committee has given me very valuable learning experience related to budgetary issue in large organizations.

- **Vice Chancellor for Research (2018 -)**

   Responsibilities: As the Vice Chancellor for Research (VCR), my role encompasses the management of the entire research enterprise of the university including all academic and professional units at Davis, the medical school at Sacramento, a large animal care facility spread over multiple locations, and remote research facilities at Tahoe and Bodega Bay.

   Office of research has more than 500 staff members, and my administration spans 5 broad units: (1) Operations, Compliance, and Sponsored Programs, (2) Strategic Initiatives and Multidisciplinary Research, (3) Innovation and Technology Commercialization, (4) Core Facilities for Research, and (5) Animal Care Facilities. I am also responsible for overseeing

(strategies, financial, and operations) more than 20 campus-wide multidisciplinary research centers including the Organized Research Units (ORUs).

Major Accomplishments:

Facilitating in increasing the external funding for research: During the last fiscal year, the external funding for UC Davis exceeded $1B for the very first time. During my time as the VCR, the level of funding has grown from about $750M to $1.07B. This growth was realized through engagement in various new initiatives, facilitation of cross-campus collaborations, and targeted investments.

Creation of new multi-disciplinary research centers: Global challenges need collaborative efforts across multiple disciplines to produce impactful research. More and more federal funding is aligning to this trend and the research community is moving toward this practice. I have been a strong promoter of creating research center and institutes that bring in faculty and researchers from a broad set of disciplines to work on challenges that address issues having broader societal and global impacts. I created four new multidisciplinary centers with investments of about $1M each. The activities leading to the final selection of the topics brought 750 faculties and researchers working together from all over the campus.

Promoting collaborative and large-scale impactful projects: I have worked very closely with faculty in helping them work collaboratively to seek external funding for large collaborative research (eg. NSF Center for AI in Food Systems). As a catalyst, I use my own experiences in such activities. I have actively worked with faculty group in promoting a culture for large collaborative and impactful research. I organized five Interdisciplinary Research Catalyst (IRC) Conversations workshops on thematic areas. The investment of about $200K for these activities resulted in over $15M in new award funding. In addition, I also created a Faculty Fellows program to help faculty pursue large interdisciplinary grants they otherwise may not have enough time to devote to for proposal development.

Consolidation of animal care programs: UC Davis has one of the largest animal care programs in the nation. The cost and operational challenges were quite overwhelming. The teaching and research animal care was under the Administration and Operations unit of campus. The mouse biology program was under the medical school and veterinary sciences program. During the last two years, I have brought together all these units under the office of research and have consolidated the operations and services. The quality of service has become better with lower operational cost.

Consolidation of a few Research Center and Core facilities: Centers: I am in the process of bringing together researchers from the 5 centers related to neuroscience and engineering to have a virtually integrated display and a truly collaborative environment for research. A similar effort is being planned for AI-related activities all over the campus. We have consolidated a few other research centers to leverage more collaboration while minimizing resource requirements. In parallel, I am overseeing the consolidation of a few core facilities including the high-performance computing center.

Budget and Financial Management: For about 8 years, two of our research units – Primate Research Center and the Nuclear Research Center – were incurring significant financial deficits. I worked with them very closely and in two years their budget is back in the black while paying back the prior deficits. I enforce financial discipline among all my reporting units and encourage them to have a sustainable budget model without impacting excellence.

Working with the 9 other VCRs across the system has been a very rewarding experience. I have participated in several activities that were coordinated through the "power of ten." It also helped in developing a broader scope of research management, especially in advocacy and planning for multi-institutional initiatives.

I also participate actively in APLU, APRU, AAU, Council of Competitiveness, and other national activities.

- **Dean and Vice-Provost, Graduate Studies (2016 - 2018)**

  As the Dean and Vice-Provost of Graduate Studies, my responsibilities spanned across the broad campus that includes 99 graduate programs, about 8000 graduate students, and 1000 postdoctoral scholars. I oversaw a total budget of about $50 million, including the distribution of fellowship and graduate students funding exceeding $40 million. I worked with the broader campus community to develop a strategic plan for the graduate studies at UC Davis. Primary components of the strategic plan include the focus on the quality of our graduate programs, multidisciplinary research, raising funds through development activities for fellowships, diversity and inclusion, and creation of better learning environment for graduate students. In collaboration with the other academic Deans, I have developed several partnership efforts to enhance our graduate programs and created new fellowships for the graduate students. Additional funding was provided for recruitment and retention of students with an emphasis on enrichment of graduate program through diversity.

  Examples of my accomplishments in this role includes development of two new graduate programs, the creation of new multi-year fellowships (Dean's Distinguished Fellowships), notable increase in the enrolment of underrepresented minorities, enhancing partnerships in training grant opportunities through matching funds, and more than doubling the graduate recruitment resources for all the programs. We initiated multiple initiatives targeted towards the success of graduate students, promoting the pipeline programs for underrepresented minorities, and expanded the professional training experiences.

  In the context of diversity enhancing efforts, I served as a PI on two externally funded projects: Bridge-to-Doctorate (NSF) and Targeting Graduate Admissions through Holistic Evaluations (Mellon Foundation). Both of these grants are proving funding for $1M+ for developing program for enhancing the learning experience of students from underrepresented minorities.

- **Associate Chancellor (2014 – 2016)**

  Although the broad scope of my role spanned the entire campus issues, the primary focus was on the strategic planning process for new initiatives and programs, and administrative reorganization and transformation from a strategic viewpoint. I was involved in new initiatives such as the creation of a Data Science Institute, visioning for a 21st century university, enhancing financial sustainability efforts across the whole campus, and looking holistically across UC Davis's administrative units to seek out the best practices and successful collaborative efforts. Through an objective review process, I worked with units to help incorporate best practices and realignments to enhance their efficiency and effectiveness in meeting the overall missions of the university. Examples of some of my efforts included consolidation of IT services, promoting transformational research, transforming recharge practices, minimization of administrative redundancies, and working with the CFO in planning for efficient resource management. I also worked with the senior

leadership in formulating strategic plans for building the vision of the University of 21st century.

- **Interim Vice-Provost and Campus Chief Information Officer (2013 – 2014)**

  In this role, I served as the chief of the Information and Educational Technology (IET) for the entire campus. IET has about 250 staff employees and in addition to managing them, I played a leadership role in strategic planning of the information technology support for administrative and educational activities for the entire campus. In addition, I was also engaged in activities related to the UC system-wide initiatives. During the year, I spearheaded several important initiatives such as administrative application development, proposal for addressing data center needs, and implementation of the Data Science Initiative. I initiated the efforts for consolidation of the thinly distributed IT support groups and processes for enhancing efficiency through collaborative coordination and thereby reducing the cost of campus-wide IT services.

- **Chair, Department of Computer Science, UC Davis (2007-2013)**

  I led the department during one of the most challenging periods when the rate of growth in terms of students and research activities and the budget situation were vacillating at the opposite ends of the spectrum. Summary of some of the accomplishments during my tenure as department chair follows:

  - The student enrolment size grew both at the graduate level as well as at the undergraduate level. We also revamped the curriculum and introduced a two-quarter sequence of senior design experience. We went through a comprehensive ABET accreditation process and came out successful in our review and were accredited for six years.

  - I spearheaded an effort to increase the student success rate through the introduction of remedial courses during summer and some targeted updates in the curriculum of the gateway courses.

  - The annual research expenditure grew from about $5.6M (2006) to $9.9M (2012) – a growth of more than 75%. Almost all our faculty members had active funded research projects. I have been aggressive in mentoring and encouraging our faculty to pursue large, collaborative, and multidisciplinary grants. We have been very successful in that aspect.

  - During my tenure as chair, we encountered one of the worst budget crises. I managed to carefully prioritize our expenses, needs, and growth plans while minimizing the impact of the budget cuts on our faculty and students.

  - I started establishing and pursuing relationships with our alumni, especially in the bay area. Connections and establishments of these relationships are leading us to more meaningful collaborations with donors as well as industry.

  - Enhanced the diversity profile of the department both in faculty and student recruitment and retention.

5. ENGAGEMENT IN DIVERSITY, EQUITY, AND INCLUSION

Undergraduate Research:
    As a faculty member in computer science, I was engaged in mentoring undergraduate research assistants from underrepresented minority (URM) populations. I participated in an NSF-funded project to help the URM students get more exposure to faculty research through active participation.

Graduate Program:
    I have made significant contribution related to diversity, equity, and inclusion for graduate programs. As the chair of graduate group in computer science, I focused on recruiting URM students through proactive methods by participating in national programs and attending focused gatherings. I also participated in various panels promoting the importance of diversity, equity, and inclusion on graduate programs.
    As the dean of graduate programs, I increased the emphasis on pipeline programs like McNair and LEEDS programs. During my term as the Dean, there was a significant rise in the percentage of URMs in the graduate programs at UC Davis. Working in collaborations with faculty across the UC systems, I instituted a bridge-to-doctorate program for URM students. This effort was funded by the NSF was yielded excellent results, especially for our STEM graduate programs.
    A similar effort was initiated by me to promote URM enrolments in humanities, arts, and social sciences. Through a $1M+ grant from the Mellon Foundation, I worked with a multi-campus team for revisiting the graduate admission process and studied its impact on success for URM students.

Faculty Recruitment:
    As a department chair, I worked actively with campus-level initiatives for promoting diversity in recruitment of engineering faculty. Through an NSF-funded ADVANCE program, I was successful in recruiting a starred Latina faculty member in the department of computer science. I participated in various programs related to addressing the implicit biases in faculty recruitment process – that stays as a barrier to diversity, inclusion, and equity efforts.
    During my time as the Graduate Dean, I initiated an activity – ENVISION – through which we brought PhD and Postdoctoral students for 2-day campus visit and inspire them for pursuing career in academics. It was not targeted for UC Davis recruitment but for general career awareness. More than 200 scholars participated from a broad range of disciplines.

Faculty Research:
    At present, I am in discussion with our vice chancellor for diversity, equity, and inclusion for creating the Institute for Diversity, Equity, and Advancement (IDEA) for promoting and enhancing research activities in the areas of diversity and equity, and encouraging broad participation amongst our faculty.

6. COMMUNITY ENGAGEMENT AND GOVERNMENTAL RELATIONS:

Engaging with the local and regional community has always been my priority. Universities and local/regional communities can leverage each other's resources (intellectual, diverse, and human factors) in order to grow symbiotically. All top universities strive to impact the local and regional communities and likewise the local and regional communities provide immense support to their universities. I am citing two of our ongoing efforts where I collaborate and contribute with my leadership roles.

Healthy Davis Together: From the very beginning of the pandemic, we (our leadership team, which I am a part of) made a conscious decision that we need to fight against the pandemic without any distinction between UC Davis and the City of Davis. With the help of some of our donors, we devised a plan to fight the community health as well as economic challenges together. We provided free testing, education, and contact tracing for the entire community in addition to the campus. Additionally, we provided economic help for small businesses for the city of Davis while supporting all the needs of our campus community. The payback was huge; the story was covered by NYT and appreciated nationally. The positivity rate of infection of the City of Davis and the UC Davis stayed under 1%, while the State's positivity rate hovered around 10%.

Aggie Square: In collaboration with the city of Sacramento, we are in the planning process to build our technology and entrepreneurship hub – called Aggie Square. As a member of the Steering Committee, I am taking a leading role in various aspects of the plan, design, and implementation of the project. Similar to Tech Square in Atlanta, this ongoing effort is facilitated through a private-public partnership that will have a local/regional impact exceeding a $1B. The site for Aggie Square is strategically chosen in the most underprivileged area of Sacramento. Thus the regional economic impact will be huge, while building up our contributions in our community.

Governmental Relations: I have been engaged in governmental relations both at the State as well as Federal levels for more than 6 years in my role as a Dean and as Vice Chancellor. Periodically, I have travelled to Washington DC to meet with congressional staff and discuss various important issues related to higher aid. Most of these meetings are coordinated through APLU, AAU, and the UC Office of President. I also serve as an Advisor on the Council of Competitiveness, where we frequently interact with house and senate representatives as well as OSTP and other governmental agencies to discuss about the priorities and the impact that higher education can made for advancing the nation. In addition, I visit and interact frequently with the State of CA legislature of various issues of local and State's interests and how UC Davis and the UC system can help and impact in broader areas, such as climate change, wildfire, transportation, and other food safety and sustainability issues.

7. FUND RAISING AND DONOR STEWARDESS:

I have been engaged in fundraising and stewarding donors for the last 15 years. I have attended a few professional training programs during these years. I will highlight a few of my successes in fundraising; some of them are ongoing or nearing successes.

o   Led a very recent effort for securing $24M for our School of Medicine from leftover funds from a legal settlement. It will be invested on research addressing women's health disparities in underprivileged communities. I had to highlight our ongoing efforts in the School of Medicine in convincing the settlement advocates and judge to get the funding gifted to UC Davis.

o   I have working very closely with a professional sports team owner for a few years, and am very close to securing a $5M gift for establishing an AI Institute for application areas of health and agriculture.

o   I was instrumental in working with Prem Jain and the establishment of the $2.0M Presidential Endowed Chair in Engineering.

o   Leading the effort for the creation of the Robert Noyce UC Institute of Excellence for Digital Transformation with a possible donation from the Noyce Trust exceeding $50M. In this ongoing effort, I am spearheading 5 of the UC campuses for a gift exceeding over $250M.

o   Early in my administrative career, I was successful in attracting the first endowed chair for the department of computer science – Tim Bucher Family Endowed Chair.

o   Currently, I am engaged in raising funds for creating a unique space for multidisciplinary research – Grand Challenges Building. We are planning on investing $100M and are trying to raise another $200M for this new building. Initial responses have been very positive, and we are targeting to get the groundbreaking for the construction in 2023.

8. ENTREPRENUERSHIP AND INDUSTRY-RELATED EXPERIENCE:

CONSULTING ACTIVITIES

January 2021 -	Advisory Board Member, Spearix, Inc.
June 2015 -	Advisory Board Member, Seceon Networks, Inc.
Jan. 2010 –	Founder, Airpackets, LLC
Aug. 2011 – Dec. 2011	Consultant, AT&T Labs
Jul. 2010 – Dec. 2010	Consultant, AT&T Labs
Dec. 2007 – Mar. 2008	Consultant, Siemens
June 2004 – Oct. 2004	Consultant, Siemens
Aug. 2003 – Sept. 2003	Consultant, Intel Corporation
June 2000 – July 2000	Consultant, Intel Corporation
Jan. 2000 – May 2000	Consultant, Panasonic Technologies

INDUSTRIAL SPONSORS AND COLLABORATORS (CURRENT AND PAST)

AT&T
ARM Research
EMC Corporation
Hewlett Packard
Intel Corporation
NEC Corporation
Panasonic
Rockwell International
Siemens
Raytheon-BBN
NICTA, Australia
Bosch Corporation

START-UP COMPANIES

- Co-Founder, Mapiz, Inc. (2009-2014) Mapiz was a start-up company involved in location-based services for smartphones and other devices. It was acquired in 2014. I was involved in formulating the vision that defined the technology as well as the business plan.

- Chief Technology Officer, Polyphasic Corporation (2000-2001): Polyphasic Corporation was a start-up company formed in East Lansing, Michigan where I served as the CTO.

BOARD MEMBERSHIPS AND ADVISORY COMMITTEE

- CITRIS Advisory Board, UC Berkeley, CA, USA (2020 -)
- Bay Area Science and Innovation Consortium (BASIC), CA, USA (2018 -)
- Joint BioEnergy Institute (JBEI), CA, USA (2018 -)
- California Mobility Center, CA, USA (2019 -)
- SRM University, AP, India (2018 -)
- GD Goenka School, Bhubaneswar, India (2017 -)
- National Commission on Innovation & Competitiveness Frontiers, USA (2019 -)

9. INTERNATIONAL EXPERIENCE:

Educational
- I have taught in several countries including Italy, India, Australia, South Korea, Thailand, and Spain. These efforts included short courses to semester long courses. These experiences exposed me to learn about the learning behaviors of students from a varied culture. In addition, I had a learning experience of interacting with academic colleagues in all of these countries.
- Advisor and Active Member of Indo-US Consortium of Engineering Education (IUCEE). IUCEE is a not-for-profit organization engaged in training the teachers of second and third tier engineering colleges in India. IUCEE has now expanded its scope to Brazil and other Asian countries.
- I have participated in the UC Education Abroad program in South Korea. I have taught summer courses over a three-year period at Yonsei University.

Research
- I have participated in collaborative and funded projects in Italy, India, Australia, and Singapore.
- I have participated in European Union (EU) funded large-scale research projects.
- I have worked for several months as a visiting scientist in Singapore, Korea, Australia, and India.
- Member of the Advisory Board, Information Technology Research Academy, Government of India
- I have served as an advisor/panelist/evaluator for:
  - Science Foundation of Ireland (SFI)
  - Qatar National Research Foundation (QNRF)
  - Hong Kong Research Council (HKRC)
  - Singapore A*STAR Program
  - Australia ARC Program
  - Greece Research Council

Leadership and Outreach
- I have been fortunate enough to have travelled in more than 50 different countries around the world. These travels have provided me a very enriching experience of multiple cultures and a view of broad international aspects, issues, and environments.
- I have given technical presentations and interacted with people in academia and industry in more than 35 different countries. These activities have provided a broad understanding of academics as well as industry collaborations in the international domain. The broad range of international experience will help me in enhancing and establishing relationships, exploring new ventures, and creating partnerships in future.
- Collaborated with groups from Vietnam, India, and Japan in fostering student exchange program with the Computer Science department at UC Davis.

10. GRANTS AND CONTRACTS (Subset Selected out of 75)

- P. Mohapatra (PI), $414,000, Army Research Office, "Millimeter-wave Networking in Transient Topologies," 2022-24.

- P. Mohapatra (Co-PI), $360,000, Department of Energy, "Cyber Innovation to Secure Manufacturing," 2020-22.

- P. Mohapatra (Co-PI), $48.2M, Army Research Laboratory, Cybersecurity Research Alliance, "Models for Enabling Continuous Reconfigurability of Secure Missions," 2013-22. (PI: P. MacDaniel, Co-PIs: K. Levitt, F. Wu, T. LaPorta, T. Jaeger, S. Krishnamurthy, I. Neamtiu, J. Camp, B. Bertenthal, L. Bauer, N. Christin, C. Gonzalez)

- P. Mohapatra (PI), $1,195,000, Andrew W. Mellon Foundation, "Alliance for Multi-campus Inclusive Graduate Admissions," 2018-22.

- P. Mohapatra (PI), $1,075,000, National Science Foundation, "California LSAMP Bridge to Doctorate Activity," 2016-18.

- P. Mohapatra (PI), $200,000, Army Research Office, "Millimeter Wave Human Tracking and Activity Monitoring," 2016-17.

- P. Mohapatra (PI), $575,000, Army Research Office, "Advanced Security Games for Cyber-Physical Systems," 2015-19. (Co-PI: Ness Shroff).

- P. Mohapatra (Co-PI), $992,746, National Science Foundation, "CC-NIE Integration: Improved Infrastructure for Data Movement and Monitoring," 2012-14. (PI: M. Bishop)

- P. Mohapatra (Co-PI), $500,000, National Science Foundation, "Towards a User-Centric Battery Management System for Smartphones," 2013-16. (Co-PI: Srikanth Krishnamurthy)

- P. Mohapatra (PI), $75,000, Hewlett Packard Company, "Location Based Communications and Services," 2013-14.

- P. Mohapatra (PI), $150,000, National Science Foundation, "Deep Network Inspection," 2012-13.

- P. Mohapatra (PI), $95,000, Hewlett Packard Company, "Location Based Communications and Services," 2012-13.

- P. Mohapatra (PI), $119,500, US Army Research Laboratory, "Trusted Networks," 2011-12.

- P. Mohapatra (PI), $195,000, US Army Research Office, "Mobility and Security in Wireless Networks," 2011-12.

- P. Mohapatra (PI), $125,000, National Science Foundation, "CIFellows Project," 2011-12.

- P. Mohapatra (PI), Total $35.5M, $7,000,000 (UC Davis Share), Army Research Laboratory, Collaborative Technology Alliance (CTA), "Quality of Information Aware Networks for Tactical Applications," (Co-PIs: R. D'Souza, Q. Zhao), 2009-2019.

- P. Mohapatra (Co-PI), $65,000, Intel Corporation, "SWiM: Scalable Wireless Mesh Networks," 2008-09 (PI: X. Liu).

- P. Mohapatra (PI), $200,000, National Science Foundation "Cross-layer Design for Streaming Video in Multihop Wireless Mesh Networks" 2008-11.

- P. Mohapatra (PI), $20,000, Intel Corporation "Diversity Research Program" 2008-09.

- P. Mohapatra (Co-PI), $65,000, Intel Corporation, "Scalable Enterprise Mesh Networks," 2007-08 (PI: X. Liu).

- P. Mohapatra (PI), $290,000, National Science Foundation, "Cooperative Security Mechanisms for DNS" 2007-10.

- P. Mohapatra (PI), $280,000, National Science Foundation, "QuRiNet: A Wide-Area Outdoor Mesh Test-bed" 2007-11 (Co-PIs: X. Liu, V. Boucher).

- P. Mohapatra (PI), $50,000, Intel Corporation, "Co-operative DNS Security" 2007-08.

- P. Mohapatra (PI), $6,250,000, Department of Defense (Army Research Office), "ARSENAL: A Cross-Layer Architecture for Secure Resilient Tactical Mobile Ad Hoc Networks," 2006-07 (Co-PIs: K. Levitt, F. Wu, S. Krishnamurthy, M. Falutsos, L. Swindlehurst, M. Jensen, S. Kasera, T. LaPorta, G. Cao, P. Krishnamurthy, D. Tipper, J. J. Garcia-Luna-Aceves), 2007-2012.

- P. Mohapatra (Co-PI), $70,000, Intel Corporation, "Management of Wireless Mesh Networks" 2006-07 (PI: C. N. Chuah).

- P. Mohapatra (Co-PI), $65,000, Intel Corporation, "Scalable Enterprise Mesh Networks," 2006-07 (PI: X. Liu).

- P. Mohapatra and G. Manimaran, $360,000, National Science Foundation, "DiffServ-Aware Multicasting," 2003-2006.

- P. Mohapatra and L. N. Bhuyan, $441,645, National Science Foundation, "Scalable Software Systems for Large Internet Servers," 2003-2007.

- P. Mohapatra, Hewlett Packard Corporation, "Research on Mobile Ad Hoc Networks," $82,400, 2002-2004.

- P. Mohapatra, National Science Foundation, $175,270, "Efficient Marking Techniques for Differentiated services in the Internet," 2001 – 2004.

- P. Mohapatra, $40,000, Intel Corporation, "E-commerce Traffic Characterization and its Impact on Internet Servers," 2000 – 2002.

- P. Mohapatra, National Science Foundation, $162,842, "Service Differentiation and Overload Control in Web Servers," July 2000 – June 2003.

11. PATENTS:

- US Patent Number 10,045,717: *WiFi-Based Person-Identification Technique for use in Smartspaces,* (With P. Pathak and Y. Zeng), August 2018.

- US Patent Number 10,347,249: *Energy-Efficient, Accelerometer-Based Hot-word Detection to Launch a Voice-Control System,* (With L. Zhang, M. Wu, L. Xiran, P. Pathak), July 2019.

- US Patent Number 9,813,907: *Sensor-Assisted User Authentication,* (With S. Chen, A. Pande), November 2017.

- US Patent Number: 9,756,460: *Adaptive Location Perturbation,* (With J. Zhu, K. H. Kim), September 2017.

- US Patent Number: 9,733,088: *Signal Space Based Navigation,* (With S. Sen, K. H. Kim, J. Zhu), August 2017.

- US Patent Number: 9,408,076: *Sensor-Assisted Biometric Authentication for Smartphones,* (With S. Chen, A. Pande), August 2016.

- US Patent Number: 8,965,398: *Bluetooth Beacon Based Location Determination,* (With J. Zhu, K. Zeng, K. H. Kim), February 24, 2015.

- US Patent Number: 6,466,978: *Multimedia File Systems Using File Managers Located on Clients for Managing Network Attached Storage Devices*, (With S. Mukherjee and I. Kamel), October 15, 2002.

12. TECHNICAL PUBLICATIONS

Selected Journal Papers (Out of 125+ journal publications)

- Z. Fang, H. Fu, T. Gu, P. Hu, J. Song, T. Jaeger, and P. Mohapatra, "Towards System Level Security Analysis of IoT using Attack Graphs," IEEE Transactions on Mobile Computing, To appear.
- P. Hu, W. Li, Y. Ma, P. Santhalingam, P. Pathak, H. Li, H. Zhang, G. Zhang, X. Cheng, and P. Mohapatra, "Towards Unconstrained Vocabulary Eavesdropping with mmWave Radar using GAN," IEEE Transactions on Mobile Computing, To appear
- K. Balasubramanian, A. Roy, S. Ghadimi,, and P. Mohapatra, "Stochastic Zeroth-Order Optimization under Nonstationarity and Nonconvexity," Journal of Machine Learning Research, 23(64): 1-47, 2022.
- H. Zhang, M. Uddin, F. Hao, S. Mukherjee, and P. Mohapatra, "MAIDE: Augmented Reality (AR)-Faciated Mobile System for Onboarding of Internet of Things (IoT) Devices at Ease," ACM Transactions on Internet of Things, 3 (2), pp. 1-21, 2022
- N. Bouacida and P. Mohapatra, "Vulnerabilities in Federated Learning," IEEE Access, April 2021.
- H. Fu, P. Hu, Z. Zheng, A. Das, P. Pathak, T. Gu, S. Zhu, and P. Mohapatra, "Towards Automatic Detection of Nonfunctional Sensitive Transmissions of Mobile Applications," IEEE Transactions on Mobile Computing, May 2020.
- P. Hu, P. Pathak, H. Zhang, Z. Yang, and P. Mohapatra, "High Speed LED-to-Camera Communication using Color Shift Keying with Flicker Mitigation," IEEE Transactions on Mobile Computing, Vol. 19. Issue 7, pp. 1603-17, July 2020.
- H. Zhang, W. Du, M. Li, K. Wu, and P. Mohapatra, "StrLight: An Imperceptible Visible Light Communication System with String Lights," IEEE Transactions on Mobile Computing, Vol. 18, Issue 7, pp. 1674-87, July 2018.
- Z. Yang, P. Pathak, Y. Zeng, X. Liran, and P. Mohapatra, "Vital Sign and Sleep Monitoring Using Millimeter Wave," ACM Transactions on Sensor Networks, Vol. 13, April 2017.
- A. Das, P. Pathak, C. N. Chuah, and P. Mohapatra, "Privacy-Aware Contextual Localization Using Network Traffic Analysis," Computer Networks, Vol. 118, pp. 24-36, May 2017.
- T. Dao, I. Singh, H. Madhyastha, S. Krishnamurthy, G. Cao, and P. Mohapatra, "TIDE: A User-Centric Tool for Identifying Energy Hungry Applications on Smartphones," IEEE/ACM Transactions on Networking, vol. 25, Issue 3, pp. 1459-74, June 2017.
- X. Wang, A. Pande, J. Zhu, and P. Mohapatra, "STAMP: Enabling Privacy-Preserving Location Proofs for Mobile Users," IEEE/ACM Transactions on Networking, Vol. 24, No. 6, pp. 3276-89, December 2016.
- R. Jin, L. Shi, K. Zeng, A. Pande, and P. Mohapatra, "MagPairing: Pairing Smartphones in Close Proximity Using Magnetometers," IEEE Transactions on Information Forensics and Security, vol. 11, Issue 6, June 2016.
- J. Kwak, O. Choi, S. Chong, and P. Mohapatra, "Processor-Network Speed Scaling for Energy-Delay Tradeoff in Smartphone Applications," IEEE/ACM Transactions on Networking, vol. 24, No. 3, pp. 1647-1661, June 2016.
- C. Lyu, D. Gu, Y. Zeng, and P. Mohapatra, "PBA: Prediction-based Authentication for Vehicle-to-Vehicle Communications," IEEE Transactions on Dependable and Secure Computing, vol. 13, Issue 1, pp. 71-83, 2016.
- P. Pathak, X. Feng, P. Hu, and P. Mohapatra, "Visible Light Communication, Networking and Sensing," IEEE Communications Surveys & Tutorials, vol. 17, pp. 2047-77, 2015.

- S. Chen, A. Pande, K. Zeng, and P. Mohapatra, "Live Video Forensics: Source Identification in Lossy Wireless Networks," IEEE Transactions on Information Forensics and Security, Vol. 10, No. 1, 2015.
- P. Pathak, R. Dutta, and P. Mohapatra, "On Availability-Performability Trade-off in Wireless Mesh Networks," IEEE Transactions on Mobile Computing, pp. 606-618, March 2015.
- X. Wang, W. Cheng, P. Mohapatra, and T. Abdulzaher, "Enabling Reputation and Trust in Privacy-Preserving Mobile Sensing," IEEE Transactions on Mobile Computing, Vol. 13, No. 12, pp. 2777-2790, Dec. 2014.
- S. Chen, K. Zeng, and P. Mohapatra, "Efficient Data Capturing for Network Forensics in Cognitive Radio Networks," IEEE/ACM Transactions on Networking, Vol. 22, No. 6, pp. 1988-2000, Dec. 2014.
- C. C. Chen, L. Yuan, A. Greenberg, C. N. Chuah, and P. Mohapatra, "Routing-as-a-Service (RaaS): A Framework for Tenant-Directed Route Control in Data Centers," IEEE/ACM Transactions on Networking, pp. 1401-1414, October 2014.
- P. Congdon, P. Mohapatra, M. Farrens, and V. Akella, "Simultaneously Reducing Latency and Power Consumption in OpenFlow Switches," IEEE/ACM Transactions on Networking, pp. 1007-1020, June 2014.
- P. McDonagh, A. Pande, L. Murphy, and P. Mohapatra, "Towards Deployable Methods for Assessment of Quality for Scalable IPTV Services," IEEE Transactions on Broadcasting, vol. 59, No. 2, pp. 223-237, June 2013.
- L. Yuan, C. C. Chen, P. Mohapatra, and C. N. Chuah, "A Proxy View of Quality of Domain Name Service, Poisoning Attacks and Survival Strategies," ACM Transactions on Internet Technology, vol. 12, Issue 3, pp. 9/1-26, May 2013.
- Y. Wei, K. Zeng, P. Mohapatra, "Adaptive Wireless Channel Probing for Shared Key Generation based on PID Controller," IEEE Transactions on Mobile Computing. Vol. 12, No. 9, 2013.
- K. Govindan, K. Zeng, and P. Mohapatra, "Probability Density of the Received Power in Mobile Networks," IEEE Transactions on Wireless Communications, Vol. 10, Issue 11, pp. 3616-3619, 2011.
- K. Govindan and P. Mohapatra, "Trust Computations and Trust Dynamics in Mobile Ad Hoc Networks," IEEE Communications Surveys and Tutorials, Vol. 14, Issue 2, pp. 279-298, 2012.
- K. Tan, D. Wu, A. Chan, and P. Mohapatra, "Comparing Simulation Tools and Experimental Testbeds for Wireless Mesh Networks," Pervasive and Mobile Computing Journal, Vol.7, Issue 4, pp. 434-448, Aug. 2011.
- P. Djukic and P. Mohapatra, "Soft-TDMAC: A Software-based 802.11 Overlay TDMA MAC with Microsecond Synchronization," IEEE Transactions on Mobile Computing, pp. 253-258, March 2011.
- W. Wang, X. Liu, J. Vicente, and P. Mohapatra, "Integration Gain of Heterogeneous WiFi/WiMax Networks," IEEE Transactions on Mobile Computing, August 2011.
- L. Yuan, C. N. Chuah, and P. Mohapatra, "ProgME: Towards Programmable Network Measurements," IEEE/ACM Transactions on Networking, Vol. 19, No. 1, Feb. 2011.
- A. Gupta, D. Ghosh, and P. Mohapatra, "Scheduling Prioritized Services in Multihop OFDMA Networks," IEEE/ACM Transactions on Networking, vol. 18, No. 6, pp. 1780-1792, December 2010.
- K. Zeng, K. Govindan, and P. Mohapatra, "Non-Cryptographic Authentication and Identification in Wireless Networks," IEEE Wireless Communications, Vol. 17, Issue 5, pp. 56-62, October 2010.

Selected Conference Papers (Out of 275+)

- A. Chhabra, A. Sekhari, and P. Mohapatra, "On the Robustness of Deep Clustering Models: Adversarial Attacks and Defenses," NeurIPS, 2022.
- T. Gu, Z. Fang, A. Abhishek, H. Fu. P. Hu, and P. Mohapatra, "IoTGAZE: IoT Security Enforcement via Wireless Context Analysis," INFOCOM 2020.
- A. Chhabra, A. Roy, and P. Mohapatra, "Suspicion-Free Adversarial Attacks on Clustering Algorithms," AAAI 2020.
- H. Fu, Z. Zheng, S. Zhu, and P. Mohapatra, *"Keeping Context in Mind: Automating Mobile App Access Control with User Interface Inspection"* IEEE INFOCOM, 2019.
- A. Goswami, C. Zhai, and P. Mohapatra, *"Learning to Rank and Discover for E-commerce Search,"* International Conference on Machine Learning and Data Mining, 2018.
- A. Roy, C. Kamhoua, and P. Mohapatra, *"Game-Theoretic Characterization of Collusive Behavior among Attackers,"* IEEE INFOCOM, 2018.
- A. Das, P. Pathak, J. Jee, C. N. Chuah, and P. Mohapatra, *"Non-Intrusive Multi-Modal Estimation of Building Occupancy,"* ACM Conference on Embedded Networked Sensor Systems (SenSys), 2017.
- R. Sivaraj, M. Arslan, K. Sundaresan, S. Rangarajan, and P. Mohapatra, *"BoLTE: Efficient Network-wide LTE Broadcasting,"* IEEE Int. Conference on Network Protocols (ICNP), 2017.
- Y. Zeng, I. Pefkianakis, K. H. Kim, and P. Mohapatra, *"MU-MIMO-Aware AP Selection for 802.11ac Networks,"* ACM Int. Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc), 2017.
- P. Hu, P. Pathak, Y. Shen, H. Jin, and P. Mohapatra, *"PCASA: Proximity-Based Continuous and Secure Authentication of Personal Devices,"* IEEE Int. Conference on Sensing, Communication, and Networking (SECON), 2017.
- M. Srivatsa, R. Ganti, and P. Mohapatra, *"On the Limits of Subsampling of Location Traces,"* IEEE Int. Conference on Distributed Computing System (ICDCS), 2017.
- X. Feng, Z. Zheng, P. Mohapatra, D. Cansever, and A. Swami, *"A Signaling Game Model for Moving Target Defense,"* IEEE INFOCOM, 2017.
- Z. Li, M. Li, P. Mohapatra, and S. Chen, J. Han, *"iType: Using Eye Gaze to Enhance Typing Privacy,"* IEEE INFOCOM, 2017.
- H. Fu, Z. Zheng, S. Bose, M. Bishop, and P. Mohapatra, *"LeakSemantic: Identifying Abnormal Sensitive Network Transmissions in Mobile Applications,"* IEEE INFOCOM, 2017.
- Z. Zheng, N. Shroff, and P. Mohapatra, *"When to Reset your Keys: Optimal Timing of Security Updates via Learning,"* AAAI Conference on Artificial Intelligenece (AAAI-17), 2017.
- H. Zhang, W. Du, P. Zhou, M. Li, and P. Mohapatra, *"DopEnc: Acoustic-Based Encounter Profiling Using Smartphones,"* ACM MOBICOM 2016.
- Z. Yang, P. Pathak, Y. Zeng, X. Liran, and P. Mohapatra, *"Monitoring Vital Signs Using Millimeter Wave,"* ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc), 2016.
- Y. Zeng, P. Pathak, and P. Mohapatra, *"WiWho: WiFi-Based Person Identification in Smart Spaces,"* IEEE Information Processing in Sensor Networks (IPSN) 2016.
- R. Sivaraj, I. Broustis, N. K. Shankaranarayanan, V. Aggarwal, R. Jana, and P. Mohapatra, *"A QoS-enabled Holistic Optimization Framework for LTE-Advanced Heterogeneous Networks,"* IEEE INFOCOM 2016.
- E. Baik, A. Pande, Z. Zheng, and P. Mohapatra, *"VSync: Cloud Based Video Streaming Service for Mobile Devices,"* IEEE INFOCOM 2016.

- P. Hu, P. Pathak, X. Feng, H. Fu, and P. Mohapatra, *"ColorBars: Increasing Data Rate of LED-to-Camera Communication using Color Shift Keying,"* ACM Conference on emerging Networking EXperiments and Technologies 2015 (CoNEXT 2015).
- T. Dao, I. Singh, H. Madhyastha, S. Krishnamurthy, G. Cao, and P. Mohapatra, "TIDE: A User-Centric Tool for Identifying Energy Hungry Applications on Smartphones," IEEE International Conference on Distributed Computing Systems, 2015.
- L. Zhang, P. Pathak, M. Wu, Y. Zhao, and P. Mohapatra, "AccelWord: Energy Efficient Hotword Detection through Accelerometer," ACM MobiSys, 2015.
- S. Seneviratne, A. Seneviratne, M. A. Kaafar, A. Mahanti, and P. Mohapatra, "Early Detection of Spam Mobile Apps," International World Wide Web Conference (WWW-2015),
- F. Jiang, E. Zarepour, M. Hassan, A. Seneviratne, and P. Mohapatra, "When to Type, Talk, or Swype: Characterizing Energy Consumption of Mobile Input Modalities," IEEE International Conference on Pervasive Computing and Communications (PerCom), 2015.
- P. Hu, H. Li, H. Fu, D. Cansever, and P. Mohapatra, "Dynamic Defense Strategy against Advanced Persistent Threat with Insiders," IEEE INFOCOM, 2015.
- E. Baik, A. Pande, C. Stover, P. Mohapatra, "Video Acuity Assessment in Mobile Devices," IEEE INFOCOM, 2015.
- R. Sivaraj, I. Broustis, N. Shankaranarayanan, V. Aggarwal, and P. Mohapatra, "Mitigating Macro-Cell Outage in LTE-Advanced Deployments," IEEE INFOCOM, 2015.
- J. Ning, I. Singh, H. Madhyastha, S. Krishnamurthy, G. Cao, and P. Mohapatra, "Secret Message Sharing Using Online Social Media," IEEE Conference on Communications and Network Security (CNS), 2014. **Best Paper Runner-Up Award**.
- S. Chen, A. Pande, and P. Mohapatra, "Sensor-Assisted Facial Recognition: An Enhanced Biometric Authentication System for Smartphones," ACM Mobisys, 2014.
- Y. Zeng, P. Pathak, and P. Mohapatra, "A First Look at 802.11ac in Action: Energy Efficiency and Interference Characterization," IFIP Networking, 2014. **Best Paper Award.**
- A. K. Das, P. Pathak, C. N. Chuah, and P. Mohapatra, "Contextual Localization Through Network Traffic Analysis," IEEE Infocom, 2014.
- J. Kwak, O. Choi, S. Chong, and P. Mohapatra, "Dynamic Speed Scaling for Energy Minimization in Delay-Tolerant Smartphone Applications," IEEE Infocom, 2014.
- A. Pande, Y. Zeng, A. Das, P. Mohapatra, S. Miyamoto, E. Seto, E. Henricson, J. Han, "Energy Expenditure Estimation with Smartphone Body Sensors," International Conference on Body Area Networks (BODYNETS), 2013. **Best Paper Award.**
- X. Wang, J. Zhu, A. Pande, A. Raghuramu, P. Mohapatra, T. Abdelzaher, and R. Ganti, "STAMP: Ah Hoc Spatial-Temporal Provenance Assurance for Mobile Users," IEEE Conference Network Protocols (ICNP), 2013.
- D. Ghosh and P. Mohapatra, "Resource Allocation in OFDMA Femto Networks," IEEE International Conference on Computer Communications and Networks (ICCCN), 2013. **(Best Paper Award)**.
- W. Hu, G. Cao, S. V. Krishnamurthy, and P. Mohapatra, "Mobility-Assisted Energy-Aware User Contact Detection in Mobile Social Networks, IEEE International Conference on Distributed Computing Systems (ICDCS), 2013.
- X. Wang, W. Cheng, P. Mohapatra, and T. Abdelzaher, "ARTSense: Anonymous Reputation and Trust in Participatory Sensing," IEEE INFOCOM 2013.
- W. Cheng, K. Tan, V. Omwando, J. Zhu, and P. Mohapatra, "RSS-Ratio for Enhancing Performance of RSS-based Applications," IEEE INFOCOM 2013.
- N. Cheng, X. Wang, W. Cheng, P. Mohapatra, A. Seneviratne, "Characterizing Privacy Leakage of Public WiFi Networks for Users on Travel," IEEE INFOCOM 2013.

- K. Kant, R. Iyer, and P. Mohapatra, "Architectural Impact of Secure Socket Layer on Internet Servers: A Retrospect," IEEE ICCD, 2012, pp. 25-26, Original paper published in ICCD-2000 was selected among the four most influential work during the first 30 years of ICCD conference.
- A. Chan, A. Pande, E. Baik, and P. Mohapatra, "Temporal Quality Assessment for Mobile Videos," ACM MOBICOM, 2012.
- S. Chen, K. Zeng, and P. Mohapatra, "Efficient Data Capturing for Network Forensics in Cognitive Radio Networks," IEEE International Conference on Network Protocols (ICNP), 2011.
- P. McDonagh, C. Vallati, A. Pande, P. Mohapatra, P. A. Perry, E. Mingozzi, "Investigation of Scalable Video Delivery using H.264 SVC on an LTE Network," International Symposium on Wireless Personal Multimedia Communications, 2011. **[Best Paper Award]**
- K. Zeng, K. Govindan, D. Wu, and P. Mohapatra, "Identity-Based Attack Detection in Mobile Wireless Networks," IEEE INFOCOM 2011.
- K. H. Kim, A. W. Min, D. Gupta, P. Mohapatra, and J. P. Singh, "Improving Energy-Efficiency of Wi-Fi Sensing on Smartphones," IEEE INFOCOM 2011.
- Y. Wei, K. Zeng, and P. Mohapatra, "Adaptive Wireless Channel Probing for Shared Key Generation," IEEE INFOCOM 2011.
- C. C. Chen, L. Yuan, A. Greenberg, C. N. Chuah, and P. Mohapatra, "Routing-as-a-Service (RaaS): A Framework for Tenant-Directed Route Control in Data Center," IEEE INFOCOM 2011.
- L. Cai, K. Zeng, H. Chen, and P. Mohapatra, "Good Neighbor: Ad-Hoc Pairing of Nearby Wireless Devices by Multiple Antennas," Network and Distributed Systems Security Symposium (NDSS), 2011.
- K. Tan, D. Wu, A. Chan, and P. Mohapatra, "Comparing Simulation Tools and Experimental Testbeds for Wireless Mesh," IEEE WoWMoM, 2010.
- K. Zeng, D. Wu, A. Chan, and P. Mohapatra, "Exploiting Multiple-Antenna Diversity for Shared Secret Key Generation in Wireless Networks," IEEE INFOCOM 2010.
- A. Chan, K. Zeng, P. Mohapatra, S. J. Lee, and S. Banerjee, "Metrics for Evaluating Video Streaming Quality in Lossy IEEE 802.11 Wireless Networks," IEEE INFOCOM 2010.
- D. Ghosh, A. Gupta, and P. Mohapatra, "Adaptive Scheduling of Prioritized Traffic in IEEE 802.16j Wireless Networks," IEEE Int. Conference on Wireless and Mobile Computer Networks and Communications (WiMob), 2009 **(Best Student Paper Award).**
- C. Deccio, C. C. Chen, J. Sedayao, K. Kant, and P. Mohapatra, "Quality of Name Resolution in Domain Name System," IEEE ICNP 2009.
- H. Yu, D, Wu, and P. Mohapatra, "Experimental Anatomy of Packet Losses in Wireless Mesh Networks," IEEE SECON 2009.
- P. Djukic and P. Mohapatra, "Soft-TDMAC: Software TDMA-based MAC over Commodity 802.11 hardware," IEEE INFOCOM 2009.
- D. Gupta, P. Mohapatra, and C. N. Chuah, "Efficient Monitoring in Wireless Mesh Networks: Overheads and Accuracy Tradeoffs," IEEE MASS, 2008. *(Nominated for Best Paper Award).*
- L. Yuan, C. N. Chuah, and P. Mohapatra, "ProgME: Towards Programmable Network Measurement," Proceedings of ACM SIGCOMM 2007.
- L. Yuan, J. Mai, Z. Su, H. Chen, C. N. Chuah, and P. Mohapatra, "FIREMAN: A Toolkit for Firewall Modeling and Analysis," IEEE Symposium on Security and Privacy, 2006.
- C. Gui and P. Mohapatra, "Power Conservation and Quality of Surveillance in Target Tracking Sensor Networks," ACM International Conference on Mobile Computing and Networking (MOBICOM), 2004.

13. KEYNOTE ADDRESSES AND DISTINGUISHED LECTURES

- "Vulnerability in Federated Learning," IEEE Network Architecture and Storage Conference, 2021.

- "Role of Land Grant Universities in Biodefense and Agro-defense," Testified at a public hearing of a Bipartisan Commission on Biodefense, Denver, 2019.

- "Innocent Vulnerabilities: A Case for IoT Security," Keynote Address, Future Networking Symposium at UNSW, Sydney, 2019.

- "Innovations in SmartSensing," CITRIS Research Exchange, University of California at Berkeley, 2019.

- "Security in Internet of Things," Distinguished Cybersecurity Seminar, University of Pittsburg, 2018.

- "Security in Internet of Things," Keynote Address, Summer School of CSIRO, Melbourne, Australia, 2018.

- "Security in Internet of Things," Keynote Address, IEEE ANTS Conference, Bhubaneswar, India, 2017.

- "SmartSensing using SmartSensors," Keynote Address, International Conference on Computing, Analytics, and Networking, Bhubaneswar, India, 2017.

- "SecureSensing using SmartSensors," Keynote Talk, IEEE TrustComm, Sydney, Australia, 2017.

- "SimpleSensing using SmartSensors," Keynote Talk, International Conference on Advanced Computing and Intelligent Engineering, Bhubaneswar, India, 2016.

- "SimpleSensing using SmartSensors," Distinguished Lecture, Shanghai Maritime University, China, 2016.

- "SimpleSensing using SmartSensors," Distinguished Lecture, SRM University, India, 2016.

- "SmartSensing using SmartSensors," Keynote Address, IEEE ANTS Conference, Kolkata, India, 2015.

- "SmartSensing using SmartSensors," Keynote Address, IEEE ICPADS Conference, Melbourne, Australia, 2015.

- "SmartSensing using SmartSensors," Keynote Address, IEEE WOWMOM Conference, Boston, USA, 2015.

- "Privacy in Public and Security without Barriers," Plenary Lecture, IT Security Symposium, Davis, USA, 2015.

- "SmartSensing using SmartSensors," ACM Distinguished Lecture, Southwest University, Chongqing, China.

- "SmartSensing using SmartSensors," Keynote Address, Joint Conference of IEEE Mobile Cloud, IEEE Could-Based Big Data Summit, and IEEE Symposium on Service-Oriented System Engineering, San Francisco, 2015.

- "Privacy in Public and Security without Barriers," Distinguished Lecture, the Croucher Foundation Advanced Study Institute, Hong Kong, 2014.

- "Digital Security Through Physical Sensing," Keynote Address, IEEE CNS Workshop on Physical-Layer Methods for Wireless Security, San Francisco, 2014.

- "Evaluating Mobile Video and Mobile Applications," Plenary Address, IEEE Conference on Intelligent Sensors, Sensor Networks and Information Processing, Singapore, April, 2014.

- "Evaluating Mobile Video and Applications," Keynote Address, International Symposium on IT Convergence Engineering, Pohang, Korea, June 2013.

- "Mobile Video Quality and Profiling Smartphone Applications," Distinguished Lecture Series, Kumoh National Institute of Technology, Korea, June 2013.

- "Trust in Multihop Wireless Networks," Keynote Address, Hotmesh Workshop, IEEE WOWMOM, San Francisco, CA, June 2012.

- "Security and Quality Provisioning in Wireless Networks," Keynote Address, International Conference on Mobile Wireless Networks, Beijing, Dec. 2011.

- "Security and Quality Provisioning in Wireless Networks," Distinguished Lecture Series, University of Nebraska-Lincoln, Dec. 2011.

- "Securing Wireless Networks by Exploiting Wireless Characteristics," Keynote Address, International Symposium on IT Convergence Engineering, Pohang, Korea, July 2011.

- "QuRiNet Testbed and Leveraging Research in Wireless Mesh Networks," Keynote Address, IEEE International Conference on Advanced Information Networking and Applications (AINA), Singapore, March 2011.

- "Advances in Wireless Networks," Keynote Address, National Conference on Computer Network Education, Nanjing, China, Dec. 2010.

- "QuRiNet and Related Research on Wireless Mesh Networks," Keynote Address, IEEE HotMesh Workshop, Kos Island, Greece, June 2009.

- "QuRiNet and Related Research on Reliable Wireless Mesh Networks," Keynote Address, CARMEN Workshop, ICT-Mobile Summit, Santander, Spain, June 2009.

- "Wireless Sensor Networks: A Sense of the Future," Plenary Address, Australian Telecommunications and Networking Conference (ATNAC), Sydney, Dec. 2004.

14. INVITED TALKS AND PANELS (Selected from 100+)

- "Robust Authentication in IoTs," Computer Science Department, University of Sydney, August 2019.
- "Smartsensing using SmartSensors," Computer Science Department, Shanghai Jiatong University, March 2019.
- "Authentication in IoTs," Computer Science Department, Shanghai Maritime University, March 2019
- "Smartsensing using SmartSensors," Computer Science Department, University of Nevada, Reno, April 2017.
- "Smartsense and Security using SmartSensors," Cybersecurity Research Center, Old Dominion University, November 2016.
- "SmartSensing using SmartSensors," Microsoft Research, Beijing, China, October 2016.
- "Game-Theoretic Models for Advanced Persistent Threats," University of Southern California, February 2016.
- "Smartsensing using Smartphones," C V Raman College of Engineering, Bhubaneswar, India, December 2015.
- "Smartsensing using Smartphones," University of Illinois at Urbana-Champaign, Illinois, October 2015.
- "On Exploiting Sensing Elements of Smartphones," Singapore Management University, Singapore, April 2014.
- "Evaluating Mobile Video and Applications," Arizona State University, Tempe, AZ, February 2014.
- "Evaluating Mobile Video Quality and Applications," University of Edinburgh, Scotland, August 2013.
- "Evaluating Mobile Video Quality and Applications," King's College, London, July 2013.
- "Evaluating Mobile Video Quality and Applications," Imperial College, London, July 2013.
- "Mobile Video Quality and Smartphone App Profiling," ETRI, Korea, May 2013.
- "Profiling Smartphone Applications," Future Communications Technology, Seoul, South Korea, May 2013.
- "Mobile Video Quality and Smartphone App Profiling," Seoul National University, Korea, April 2013.
- "Mobile Video Quality and Smartphone App Profiling," Yonsei University, Korea, April 2013.
- "Mobile Video Quality and Smartphone App Profiling," KAIST, Korea, March 2013.
- "Mobile Video Quality and Smartphone App Profiling," University of Washington, November 2012.
- "Quality and Security in Wireless Networks," Broadcom Corporation, CA, September 2011.
- "QuRiNet and Related Research," University of Sydney, Australia, August 2011.
- "Securing Wireless Networks by Exploiting Wireless Characteristics," University of New South Wales, Australia, August 2011.
- "Securing Wireless Networks by Exploiting Wireless Characteristics," University of Auckland, New Zealand, August 2011.
- "Internet of Things," Infocom 2011 Panel Discussion, Shanghai, China, April 2011.
- "QuRiNet and Related Research on Wireless Mesh Networks," AT&T Research, San Ramon, CA, April 2010.
- "QuRiNet and Related Research on Wireless Mesh Networks," University College Dublin, Ireland, April 2010.

- "QuRiNet and Related Research on Wireless Mesh Networks," Hewlett Packard Labs, Palo Alto, CA, March 2010.
- "QuRiNet and Related Research on Wireless Mesh Networks," Universidad Carlos III de Madrid, Spain, June 2009.
- "QuRiNet Test-bed and Related Research on Resource Management in Wireless Mesh Networks," Department of Computer Science, Trinity College, Dublin, Ireland, October 2008.
- "QuRiNet Test-bed and Related Research on Resource Management in Wireless Mesh Networks," Department of Computer Science, Seoul National University, July 2008.
- "QuRiNet Test-bed and Related Research on Resource Management in Wireless Mesh Networks," Samsung Institute of Advanced Technology, South Korea, Aug. 2007.
- "QuRiNet Test-bed and Related Research on Resource and Quality Management in Wireless Mesh Networks," POSTECH University, South Korea, July 2007.
- "Quail Ridge Wireless Mesh Network," University of Padova, Italy, December 2006.
- "Quail Ridge Wireless Mesh Network," National ICT Australia, Sydney, August 2006.
- "Target Tracking and Surveillance using Sensor Networks," Department of Computer Science and Engineering, The Pennsylvania State University, March 2005.
- "Target Tracking and Surveillance using Sensor Networks," Department of Electrical Engineering, University of Pennsylvania, March 2005.
- "Sensor Networks: A Sense of the Future," School of Computer Engineering, Nanyang Technological University, Singapore, March 2005.
- "Target Tracking and Surveillance using Sensor Networks," University of Sydney, Sydney, Dec. 2004.
- "Target Tracking and Surveillance using Sensor Networks," University of Technology, Sydney, Dec. 2004.
- "Target Tracking and Surveillance using Sensor Networks," University of New South Wales, Sydney, Dec. 2004.
- "Target Tracking and Surveillance using Sensor Networks," School of Computer Engineering, Nanyang Technological University, Singapore, September 2004.
- "Target Tracking and Surveillance using Sensor Networks," Institute for Infocomm Research (I2R), Singapore, August 2004.
- "Target Tracking and Surveillance using Sensor Networks," School of Computing, National University of Singapore, July 2004.
- "Target Tracking Sensor Networks," Nokia Research Center, California, April 2004.

15. STUDENTS ADVISING AND MENTORING

Doctoral Dissertations Completed:

[43] Zheng Fang, *System-Level Security Analysis of IoTs*, 2022.

[42] Huanle Zhang, *Accelerating Vision Systems on Mobile Devices*, 2020.

[41] Tianbo Gu, *Wireless Security for Supporting Internet of Things*, 2020.

[40] Abhishek Roy, *Multi-Point Bandit Algorithms for Nonstationary Online Nonconvex Optimization*, 2020.

[39] Zhicheng Yang, *Towards 60 GHz Millimeter-wave WLANs and Smart Sensing*, 2019.

[38] Hao Fu, *Detecting Malicious Behaviors in Mobile Applications*, 2019.

[37] Muchen Wu, *Context Determination from Cyber-Physical Sensing*, 2019.

[36] Xiaotao Feng, *Game-Theoretic Models and Behavioral Studies for Cybersecurity*, 2019.

[35] Yunze Zeng, *Enriching WLANs with Advanced Sensing and Networking Applications*, 2018.

[34] Aveek Das, *Context-Aware Information Mining for Wireless Networks*, 2018.

[33] Pengfei Hu, *Performance and Security Enhancements of Wireless Networks through Visible Light and Inaudible Sound*, 2018.

[32] Anjan Goswami, *Machine-Learned Ranking Algorithms for E-Commerce Search and Recommendation Algorithms*, 2018.

[31] Jindan Zhu, *Improving Mobile Services through Multi-Context Analysis*, 2017.

[30] Rajarajan Sivaraj, *Radio Resource Management in Advanced OFDMA-based Cellular Networks*, 2016.

[29] Ningning Cheng, *Investigating Privacy Leakage in Mobile Wireless Networks*, 2016.

[28] Li Zhang, *Optimizing Resource Efficiency of Smartphone Apps through Characterization and Data mining Approaches*, 2015.

[27] Eilwoo Baik, *Enhanced Video Communications over Wireless Networks*, 2015.

[26] Shraboni Jana, *Interactive Multimedia Services in Mobile Wireless Networks*, 2015.

[25] Shaxun Chen, *Enhancing Wireless Security through Cross-Layer Approaches*, 2014.

[24] Chao-Chih Chen, *Practical Management as a Service (MaaS) Substrate for Data Center Network*, 2014.

[23] Xinlei Wang, *Provenance Based Information Trust in Wireless and Distributed Networks*, 2014.

[22] Kefeng Tan, *Design and Implementation of Spectrum-Aware Wireless Multimedia Communications System*, 2013.

[21] Xiaolin Cheng, *Enhancing Quality of Video Services over Wireless Networks*, 2012.

[20] Debalina Ghosh, *Scheduling and Resource Allocation in OFDMA Wireless Networks*, 2012.

[19] An Chan, *Multimedia Communications over Wireless Networks*, 2012.
(Winner of the Best Graduate Researcher Award)

[18] Paul Congdon, *Exploiting Characteristics of Data Centers to Enhance Ethernet Switching*, 2012.

[17] Hua Yu, *Capacity Enhancement and Reliability of Wireless Mesh Networks*, 2010.

[16] Casey Deccio, *Quantifying and Improving DNS Availability*, 2010.

[15] Minh Huynh, *Next Generation of Robust Carrier Ethernet*, 2010.

[14] Daniel Wu, *Deployment and Performance Enhancement of Wireless Mesh Networks*, 2010.

[13] Dhruv Gupta, *Managing Wireless Mesh Networks: A Measurement Based Approach*, 2010.

[12] Kurtis B. Kredo, *Networking Support for Underwater Wireless Networks*, 2010.

[11] Ashima Gupta, *Scheduling for Energy Conservation and Quality Enhancement in Multihop Wireless Networks*, 2009.

[10] Amit Sahoo, *Large-Scale Failures in the Internet – Characterization, Implications, and Recovery*, 2009.

[9] Lihua Yuan, *Towards Network Verification and Introspection*, 2008.

[8] Jian Li, *Quality of Service Provisioning in Multihop Ad Hoc Networks*, 2006.

[7] Chao Gui, *Routing Performance and Power Conservation in Ad Hoc and Sensor Networks*, 2005. (Winner of Best Graduate Researcher Award, Best Dissertation Award)

[6] Zhi Li, *Resiliency and QoS Support in Multicasting and Overlay Networks*, 2005.

[5] Huamin Chen, *Web Server Performance Improvement and QoS Provisioning,* 2003.

[4] Baijian Yang, *Supporting Multicast in Scalable QoS Frameworks,* 2002.

[3] Xiangping Chen, *A Framework for Service Differentiating Internet Servers,* 2000.

[2] Vara Varavithya, *Interprocessor Communication in Multicomputer Systems,* 1998.
(Recipient of Graduate Research Excellence Award)

[1] Chung-yen Chang, *Processor Management Techniques for Multicomputer Systems,* 1997.
(Recipient of Graduate Research Excellence Award)

16. UNIVERSITY COMMITTEE SERVICES

Department Committees (subset of recent ones):

Department Executive Committee (2007-13),
Graduate Group Executive Committee (2010-13),
Chair of Faculty Search Committee (2013-14),
Chair of Graduate Group in Computer Science (2004-2007),
Graduate Admissions Committee (2001-2003)

College Committees (subset of recent ones):

Graduate Study Committee (2010-13),
Board Member of ETTC (2011-16),
Steering Committee Member of UCD/SNL/LLNL Open Campus Initiative (2011-15),
2020 Planning Committee Member (2012-13),
Faculty Personnel Committee (2013-14).

Campus-wide Committees (subset of recent ones):

Chancellor Leadership Council (2017-)
Budget Framework Advisory Committee (2019-)
Council of Deans (2016 - 17),
Chancellor's Cabinet (2013-2017),
Academic Council of Coordinating Deans (2013-)
Council of Deans and Vice-Chancellors (2013-present),
Chancellor's Council (2014-16),
Campus Community Council (2013-present),
STAIR – Entrepreneurial Proposal Review Panel (2014 -)
Data Science Institute (DSI) Advisory Committee (2014-)
Limited Submissions Review Committee (2014 -)
Joint Task Force for Research Units (2017)
Data Governance Committee (2017 -)

System-wide Committees (subset of recent ones):

Council of Vice Chancellors for Research (COVCR), 2018 –
Council of Cybersecurity, 2021 -
Search Committee for Vice President of Research and Innovation, 2019
Council of Graduate Deans, 2016-18

17. PROFESSIONAL ACTIVITIES

Editor-in-Chief	IEEE Transactions on Mobile Computing, 2014 – 17
Member	IEEE Fellows Selection Committee, 2010, 2011, 2015, 2021
	Council of Competitiveness, 2019 -

Editorial Board: IEEE Transactions on Mobile Computing, 2007 - 2012
IEEE Transactions on Parallel and Distributed Systems, 2006 - 2010
ACM/Springer WINET Journal, 2004 – 2009
Ad Hoc Networks Journal, 2004 - 2009
IEEE Transactions on Computers, 1999 – 2003

Guest Editor: Ad Hoc Networks, 2011
IEEE Wireless Communications, 2008
IEEE Communications, 2007
IEEE Trans. on Mobile Computing, Special Section, Oct-Dec. 2004
IEEE Computer, Special Issue on Internet Data Centers, Nov. 2004
IEEE Network, Special Issue on Multicasting, January/February 2003
Performance Evaluation Review, ACM SIGMETRICS, September 2001

Steering Committee   IEEE INFOCOM, 2019 -
IEEE SECON, 2005 – 2017
IEEE Trans. on Mobile Computing, 2011 - 2013

General Chair   ICNP 2015
COMSNETS 2015
IEEE WOWMOM 2012
IEEE SECON 2011

Program Chair: IEEE International Conference on Computer Communications and Networks (ICCCN), 2012.
IEEE International Conference on Mobile Ad hoc and Sensor Systems (MASS), 2010.
IEEE International Symposium on a World of Wireless, Mobile, and Multimedia Networks (WoWMoM), 2009.
International Conference on Quality of Service in Heterogeneous Wired/Wireless Networks (QShine), 2006.
IEEE Workshop on Advances in Sensor Networks, 2006.
IEEE Sensor and Ad hoc Communications and Networking Conference (SECON), 2004

Program Vice-Chair: INFOCOM, 2004
IEEE Mobile Ad hoc and Sensor Systems (MASS), 2004
International Conference on Parallel Processing, 2001

Tutorials Chair: Advanced Computing and Communications, 2001
International Conference on Information Technology, India, 1998.

Finance Chair: IEEE Symposium on High-Performance Computer Architecture, 1998

Program Committee Member:
INFOCOM, 2003 -- 2015
MOBIQUITOUS 2005, 2006
MOBICOM, 2004, 2005, 2006, 2007, 2008
MOBIHOC 2006, 2007
Broadnets 2007, 2008
SECON 2004, 2005, 2006, 2008, 2009, 2010
ICNP 2008, 2009, 2010, 2011
International Communications Conference (ICC) 2008
WoWMoM 2006
Mobile Wireless Communications Networks (MWCN), 2004
Real Time Applications Symposium, 2004
ICON, 2004
IFIP Networking Conference, 2004, 2005
International Conference on Parallel and Distributed Systems, 2004
Wireless Communications and Networking Conference (WCNC), 2003
International World Wide Web Conference (Practice and Experience Track), 2003
Workshop on Trusted Internet Computing (with HiPC), 2002
International Conference on Distributed Computing Systems, 2001.
International Conference on Computer Communications and Networks, 2000.
International Conference on Computer Communications and Networks, 1999.
International Conference on High-Performance Computing, 1999.
International Conference on Parallel Processing, 1999.
International Workshop on Multimedia Network Systems, 1999.
International Conference on Computer Applications in Industry & Engineering, 1999
Workshop on Dependable Computer Systems, EUROMICRO Conference, 1998, 1999.
International Conference on Computer Design, 1997.
International Conference on Parallel and Distributed Computing Systems, 1996.

Referee and Panelists – Funding Agencies:
National Science Foundation
Hong Kong Research Grant Council
Singapore A*STAR
Science Foundation Ireland
Qatar National Research Foundation
Greek Ministry of Education

Referee – Several Journals and Conferences