

2018 RESEARCH EXPO

OAKLAND UNIVERSITY
SCHOOL OF ENGINEERING AND COMPUTER SCIENCE

DATA ANALYTICS AND CYBERSECURITY

Shadi Alawneh, Ph.D.

INTEGRATING WEARABLES WITH CLOUD-BASED COMMUNICATION FOR HEALTH MONITORING AND EMERGENCY ASSISTANCE

Erik Fredericks, Ph.D.

SEARCH-BASED SOFTWARE ENGINEERING

Huirong Fu, Ph.D.

-UBIQUITOUS SECURITY, PRIVACY AND TRUST MANAGEMENT LAB
-INFERENCE ATTACK AGAINST PHY-LAYER KEY EXTRACTION & COUNTERMEASURES

Tuan Le, Ph.D.

SEMANTIC VISUALIZATION FOR INTERACTIVE TOPICAL ANALYSIS

Jia Li, Ph.D.

RF TOMOGRAPHIC RECONSTRUCTION BASED ON CONVOLUTIONAL NEURAL NETWORK

Anyi Liu, Ph.D.

SECURE AND TRUSTWORTHY COMPUTING FOR PERVASIVE COMPUTING

Khalid Malik, Ph.D.

-DECENTRALIZED DECISION SUPPORT SYSTEM USING SEMANTIC, COGNITIVE AND PERCEPTUAL COMPUTING
-TOWARDS CROSS-LAYER MULTIMEDIA FORENSICS AND MULTI-PARTY CRYPTOGRAPHIC SCHEMES

Hua Ming, Ph.D.

PROTECTING PRIVACY WITH ROLE-FUNCTIONAL DEPENDENCY MODEL

Md Atiqul Mollah, Ph.D.

EVALUATING TOPOLOGY DESIGN PERFORMANCE FOR EXASCALE SYSTEMS

Nilesh Patel, Ph.D.

DEEP NEURAL NETWORKS @ IIELAB

Guangzhi Qu, Ph.D.

MIGRATING LEGACY RT EMBEDDED PROGRAMS ONTO MULTICORE PLATFORMS

Amartya Sen, Ph.D.

USER QoS AND SECURITY PREFERENCES IN IoT NETWORKS USING DYNAMIC OVERLAYS

Gautam Singh, Ph.D.

STEGANOGRAPHY & CORPORATE ESPIONAGE

Mohamed Zohdy, Ph.D.

DECISION TREE, SENSORS, CLOUD PRIVACY

AUTONOMOUS SYSTEMS AND TECHNOLOGY

Shadi Alawneh, Ph.D.

GPU COMPUTING FOR AUTONOMOUS DRIVING APPLICATIONS

Daniel Aloï, Ph.D.

APPLIED EMAG & WIRELESS LAB

Yin-Ping Chang, Ph.D.

-CONTACT - IMPACT MODELING
-VIRTUAL PROVING GROUND

Jingshu Chen, Ph.D.

MR4FT: IMPROVING THE SAFETY OF AUTONOMOUS VEHICLES BY ADDING FAULT TOLERANCE

Ka C Cheok, Ph.D.

-SMOOTH PREVIEW PATH PLANNER WITH LYAPUNOV STABILITY CRITERION
-ROBOTICS TOOLKIT (RTK) FOR LOGISTICS AUTOMATION & AUTONOMOUS DRIVING

Christopher Cooley, Ph.D.

VIBRATION OF MECHANICAL SYSTEMS

Dan DeVescovo, Ph.D.

FUEL AND ENGINE INTERACTIONS AT BOOSTED CONDITIONS

Subra Ganesan, Ph.D.

-AUTOMOTIVE SECURITY - CRYPTO CHIP
-PROGNOSTICS MODELS FOR AUTOMOTIVE ELECTRONIC CONTROL UNIT
-REAL TIME DRIVER DROWSINESS DETECTION- ADVANCED DRIVER ASSIST SYSTEM (ADAS)

Jia Li, Ph.D.

SENSOR FUSION BASED INDOOR POSITIONING SYSTEM

Daniel Llamocca, Ph.D.

RECONFIGURABLE EMBEDDED SYSTEMS

Geoffrey Louie, Ph.D.

TOWARDS HUMAN-ROBOT TEAMS

Douglas Zytko, Ph.D.

HUMAN-COMPUTER INTERACTION LAB



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POWER AND ENERGY

S. Ali Arefifar, Ph.D.

OPTIMIZING DESIGN AND OPERATION OF SMART GRIDS

**Jonathan Maisonneuve,
Ph.D.**

MEMBRANE PROCESSES FOR ENERGY

Nilesh Patel, Ph.D.

EVOLUTIONARY COMPUTATION (EC) FOR REAL-LIFE INDUSTRIAL APPLICATIONS

Peng Zhao, Ph.D.

ENGINE, FUEL, AND BATTERY RESEARCH

ADVANCED MANUFACTURING

Yin-Ping Chang, Ph.D.

VIOLIN = TIRE?

Bill Edwards, Ph.D.

MIFT - MOVE IT FORWARD THEORY

**Sergey Golovashchenko,
Ph.D.**

METAL FORMING AND JOINING PROCESSES

Laila Guessous, Ph.D.

SOLVING ENGINEERING PROBLEMS USING COMPUTER SIMULATIONS

Nilesh Patel, Ph.D.

BI-LEVEL EVOLUTION FOR ENERGY NETWORK PLANNING

Hongwei Qu, Ph.D.

-MATERIAL MICROSCOPY AND MICROANALYSIS
-MEMS AND MICROELECTRONICS

Missie Smith, Ph.D.

HUMAN FACTORS AND ERGONOMICS

Xia Wang, Ph.D.

BATTERY AND FUEL CELL RESEARCH

LianXiang Yang, Ph.D.

SEEING INVISIBLES BY OPTICAL METHODS