



STANDING INNOVATION

AWARD RECIPIENTS

OCTOBER 30, 2024

UF INNOVATE | TECH LICENSING

These are the innovators receiving those honors (embargoed until the program begins October 30, 2024):

Innovator of the Year:

Elias Sayour

MD-NEUROLOGICAL SURGERY *(featured on social Monday, November 4)*

Inventions of the Year:

(Principal investigator listed first)

Cryptococcal Nano-Immunotherapy: A Fungal Drug Carrier Platform

EG-BIOMEDICAL ENGINEERING *(featured on social Tuesday, November 12)*

- Jamal Lewis
- Clinton Smith

Use of Puragel (RADA16) to Reduce Mucosal Inflammation

MD-OTOLARYNGOLOGY *(featured on social Monday, November 25)*

- Jennifer Mulligan
- Carl Atkinson

Sensor Strip with Multiple Sensors for Sensing Different Agents Simultaneously

EG-CHEMICAL ENGINEERING, DN-PROSTHODONTICS *(featured on Monday, Dec. 16)*

- Fan Ren
- Josephine Esquivel-Upshaw
- Hsiao-Hsuan Wan
- Yu-Te Liao

Design-Manufacturing Digitalization Software for Multi-Functional Robotic Stations for Industrialized Construction

DCP-RINKER SCH OF BLDG CONSTR *(featured on social Monday, November 18)*

- Aladdin Alwisy
- Ben Tehrani

Natural Product Combinations Function As REV-ERB Ligands (*combined with Natural Product ERR Ligands as Potential Exercise Mimetic*)

PH-PHARMACODYNAMICS, RE-GENETICS INSTITUTE, RE-VP FOR RESEARCH *(featured on social Monday, December 9)*

- Thomas Burris

Quantum Benchmarking via Random Dynamical Quantum Maps

EG-COMPUTER / INFO SCI & ENG *(featured on social Monday, December 2)*

- Prabhat Mishra
- Daniel Volya

On Monday, January 20, we'll feature "I Am a UF Innovator" and a save-the-date for Standing InnOvation 2025.

Herbert Wertheim

College of Engineering



J. Clayton Pruitt Family Department of Biomedical Engineering

Madisen Domayer

EG-BIOMEDICAL ENGINEERING

Disclosed:

- T19155, Peptide-Protein Granules for Intracellular Delivery Formed Using Crowding Agents

Eric Hill

EG-BIOMEDICAL ENGINEERING

Disclosed:

- T19210, An Asparagine-Tryptophan Polypeptide Tag for the Creation of Single Component Protein Hydrogels

Gregory Hudalla

EG-BIOMEDICAL ENGINEERING

Disclosed:

- T19131, A Stable Mutant of Indoleamine 2,3-Dioxygenase
- T19155, Peptide-Protein Granules for Intracellular Delivery Formed Using Crowding Agents
- T19210, An Asparagine-Tryptophan Polypeptide Tag for the Creation of Single Component Protein Hydrogels

Benjamin Keselowsky

EG-BIOMEDICAL ENGINEERING

Disclosed:

- T19131, A Stable Mutant of Indoleamine 2,3-Dioxygenase
- T19210, An Asparagine-Tryptophan Polypeptide Tag for the Creation of Single Component Protein Hydrogels

Alexander Lacerna

EG-BIOMEDICAL ENGINEERING

Disclosed:

- T19339, 3D Printable Mechatronic Lab Kit for Introduction to Engineering

Jamal Lewis

EG-BIOMEDICAL ENGINEERING

Disclosed:

- T19361, Cryptococcal Nano-Immunotherapy: A Fungal Drug Carrier Platform

Peter McFetridge

EG-BIOMEDICAL ENGINEERING

Patents issued:

- T13458, Implant Materials for TMJ Repair, Methods of Making the Implant Materials for TMJ Repair, and Method of Using Implant Materials for TMJ Repair
 - DIV
 - 17/032,402
 - 11,911,278
 - 2/27/2024

Parisa Rashidi

EG-BIOMEDICAL ENGINEERING

Optioned:

- A20914, Option, HOSVD for Interpretable Representations of Perioperative Time Series and Prediction of Postoperative Outcomes

Jennifer Simonovich

EG-BIOMEDICAL ENGINEERING

Disclosed:

- T19131, A Stable Mutant of Indoleamine 2,3-Dioxygenase

Clinton Smith

EG-BIOMEDICAL ENGINEERING

Disclosed:

- T19361, Cryptococcal Nano-Immunotherapy: A Fungal Drug Carrier Platform

Arun Wanchoo

EG-BIOMEDICAL ENGINEERING

Disclosed:

- T19131, A Stable Mutant of Indoleamine 2,3-Dioxygenase

Carlos Rinaldi

EG-BIOMEDICAL ENGINEERING, EG-CHEMICAL ENGINEERING

Disclosed:

- T19450, Micropatterned PEG Composite Granular Hydrogels, Compositions and Their Uses

Christopher Batich

EG-BIOMEDICAL ENGINEERING, EG-MATERIALS SCI ENGINEERING

Patents issued:

- T17373, Quarternized TiN Anti-bacterial Coating for Dental Implants
 - ORD/UTIL
 - 17/258,022
 - 11,864,964
 - 1/9/2024

Jon Dobson

EG-BIOMEDICAL ENGINEERING, LS-CHEMISTRY

Patents issued:

- T15906, Magnetic Particle Conjugates and Methods of Activating Cell Signaling
 - CON
 - 16/941,181
 - 11,730,971
 - 8/22/2023

Chemical Engineering

Elizabeth Aikman

EG-CHEMICAL ENGINEERING

Disclosed:

- T19231, Silk Fibroin from Plodia interpunctella and Methods for Creating Biomaterial Scaffolds

Jason Butler

EG-CHEMICAL ENGINEERING

Optioned:

- A21019, Option, Microfluidic Extraction and Fractionation of Polyelectrolytes (DNA and RNA)

Won Tae Choi

EG-CHEMICAL ENGINEERING

Disclosed:

- T19338, Bioinspired Black Nickel Coatings, Methods of Making, and Methods of Uses

Thomas Corbin

EG-CHEMICAL ENGINEERING

Disclosed:

- T19127, Viscosity and Surface Tension Measurement Using Resonance of Levitated Droplets

Carl Denard

EG-CHEMICAL ENGINEERING

Disclosed:

- T19150, Engineered Cells for Use in Cell Crystal Technologies
- T19151, Cell Crystals: Bio-Metamaterials Made From Crystalline Arrays of Living Cells

Lauren Eccles

EG-CHEMICAL ENGINEERING

Disclosed:

- T19231, Silk Fibroin from Plodia interpunctella and Methods for Creating Biomaterial Scaffolds

Chaker Fares

EG-CHEMICAL ENGINEERING

Optioned:

- A20853, Option, Low Cost Disposable Medical Sensor Fabricated on Glass, Paper or Plastics

Helena Hagelin Weaver

EG-CHEMICAL ENGINEERING

Disclosed:

- T19193, Processes and Methods for Steel and Iron Manufacture Decarbonization

Optioned:

- A20982, Option, Concurrent O2 Generation and CO2 Control for Advanced Life Support

Piyush Jain

EG-CHEMICAL ENGINEERING

Disclosed:

- T19129, A Programmable Gene Correction Technology Using Cas-Polymerase Constructs
- T19227, Charge-Engineered Cas12a Variants for Enhanced Stability and Nucleic Acid Detection
- T19228, Leveraging thermostable Cas enzymes for single-pot PAM-free and extraction-free nucleic acid detection with CRISPR Ultimate
- T19229, Programmable RNA Detection using Pseudo-Guide DNA using Cas12i & Cas12a
- T19230, Multiplexing Cas12a and TnpB and/or an engineered BrCas12b (RFND) for CRISPR-based Detection & Differentiation Utilizing Temperature
- T19436, Methods and Compositions for a Programmable DNA Editing Technology Using Engineered Polymerase-Cas9 Constructs
- T19302, Lateral Flow Assay Detection of Phospholipase A2
- T19150, Engineered Cells for Use in Cell Crystal Technologies
- T19151, Cell Crystals: Bio-Metamaterials Made From Crystalline Arrays of Living Cells

Peng Jiang

EG-CHEMICAL ENGINEERING

Disclosed:

- T19338, Bioinspired Black Nickel Coatings, Methods of Making, and Methods of Uses
- T19458, Superhydrophobic Shape Memory Alloys, Methods of Making, and Methods of Use

Optioned:

- A21031, Option, New Methodology for Fabricating Broadband Antireflection Coatings on Silicon Wafers

Patents issued:

- T16968, Methods and Sensors for Detection
 - CON
 - 17/903,312
 - 12,031,919
 - 7/9/2024
- T16682, Intraocular Pressure Sensing Material, Devices, and Uses Thereof
 - ORD/UTIL
 - 17/051,051
 - 11,819,277
 - 11/21/2023
- T17004, Substrates Having a Broadband Antireflection Layer and Methods of Forming a Broadband Antireflection Layer
 - ORD/UTIL
 - 16/956,029
 - 11,705,527
 - 7/18/2023
- T17678, Methods and Compositions Relating to Tunable Nanoporous Coatings
 - CON
 - 17/230,160
 - 11,795,281
 - 10/24/2023
- T16678, Methods and Sensors for Detection
 - CON
 - 17/903,312
 - 11,781,993
 - 10/10/2023

Anthony Ladd

EG-CHEMICAL ENGINEERING

Disclosed:

- T19151, Cell Crystals: Bio-Metamaterials Made From Crystalline Arrays of Living Cells

Optioned:

- A21019, Option, Microfluidic Extraction and Fractionation of Polyelectrolytes (DNA and RNA)

Laurel Lapish

EG-CHEMICAL ENGINEERING

Disclosed:

- T19450, Micropatterned PEG Composite Granular Hydrogels, Compositions and Their Uses

Jason Livesay

EG-CHEMICAL ENGINEERING

Disclosed:

- T19127, Viscosity and Surface Tension Measurement Using Resonance of Levitated Droplets

Jasmine McTyer

EG-CHEMICAL ENGINEERING

Disclosed:

- T19231, Silk Fibroin from Plodia interpunctella and Methods for Creating Biomaterial Scaffolds

Katelyn Meister

EG-CHEMICAL ENGINEERING

Disclosed:

- T19227, Charge-Engineered Cas12a Variants for Enhanced Stability and Nucleic Acid Detection
- T19228, Leveraging thermostable Cas enzymes for single-pot PAM-free and extraction-free nucleic acid detection with CRISPR Ultimate

Joshua Moon

EG-CHEMICAL ENGINEERING

Disclosed:

- T19193, Processes and Methods for Steel and Iron Manufacture Decarbonization
- T19205, Photochemically-Enhanced Direct Air Capture with Electrocatalytic CO₂ Upgrading

Ranganathan Narayanan

EG-CHEMICAL ENGINEERING

Disclosed:

- T19127, Viscosity and Surface Tension Measurement Using Resonance of Levitated Droplets

Carlos Orosco

EG-CHEMICAL ENGINEERING

Disclosed:

- T19229, Programmable RNA Detection using Pseudo-Guide DNA using Cas12i & Cas12a

Marisa Pacheco

EG-CHEMICAL ENGINEERING

Disclosed:

- T19231, Silk Fibroin from Plodia interpunctella and Methods for Creating Biomaterial Scaffolds

Briana Pizzano

EG-CHEMICAL ENGINEERING

Disclosed:

- T19230, Multiplexing Cas12a and TnpB and/or an engineered BrCas12b (RFND) for CRISPR-based Detection & Differentiation Utilizing Temperature
- T19436, Methods and Compositions for a Programmable DNA Editing Technology Using Engineered Polymerase-Cas9 Constructs

Noah Rakestraw

EG-CHEMICAL ENGINEERING

Disclosed:

- T19129, A Programmable Gene Correction Technology Using Cas-Polymerase Constructs
- T19436, Methods and Compositions for a Programmable DNA Editing Technology Using Engineered Polymerase-Cas9 Constructs

Santosh Rananaware

EG-CHEMICAL ENGINEERING

Disclosed:

- T19227, Charge-Engineered Cas12a Variants for Enhanced Stability and Nucleic Acid Detection
- T19228, Leveraging thermostable Cas enzymes for single-pot PAM-free and extraction-free nucleic acid detection with CRISPR Ultimate
- T19229, Programmable RNA Detection using Pseudo-Guide DNA using Cas12i & Cas12a

Fan Ren

EG-CHEMICAL ENGINEERING

Disclosed:

- T19144, Novel Biosensor Detection of Breast Cancer Staging in Saliva Biomarkers
- T19164, SiCN and QSiCN as Thin-Film Anti-Bacterial Coatings for Multiple Applications
- T19301, Sensor Strip with Multiple Sensors for Sensing Different Agents Simultaneously
- T19327, QSiCN and SiCN Coatings for Dental Applications
- T19371, GlcNAc as a Prebiotic Agent Against Multiple Oral Diseases
- T19384, Biosensor for Oral Cancer Detection in Saliva and New Method for Functionalization of Antibodies on a Sensor Strip

Optioned:

- A20853, Option, Low Cost Disposable Medical Sensor Fabricated on Glass, Paper or Plastics

Patents issued:

- T17373, Quarternized TiN Anti-bacterial Coating for Dental Implants
 - ORD/UTIL
 - 17/258,022
 - 11,864,964
 - 1/9/2024
- T17926, Methods and Compositions for Medical Implants having Anti-bacterial Coatings
 - ORD/UTIL
 - 17/759,760
 - 11,752,236.
 - 9/12/2023

Juan Manuel Restrepo Florez

EG-CHEMICAL ENGINEERING

Disclosed:

- T19193, Processes and Methods for Steel and Iron Manufacture Decarbonization

Victor Rivera-Llabres

EG-CHEMICAL ENGINEERING

Disclosed:

- T19450, Micropatterned PEG Composite Granular Hydrogels, Compositions and Their Uses

Whitney Stoppel

EG-CHEMICAL ENGINEERING

Disclosed:

- T19231, Silk Fibroin from Plodia interpunctella and Methods for Creating Biomaterial Scaffolds

Hsiao-Hsuan Wan

EG-CHEMICAL ENGINEERING

Disclosed:

- T19144, Novel Biosensor Detection of Breast Cancer Staging in Saliva Biomarkers
- T19301, Sensor Strip with Multiple Sensors for Sensing Different Agents Simultaneously

Minghan Xian

EG-CHEMICAL ENGINEERING

Optioned:

- A20853, Option, Low Cost Disposable Medical Sensor Fabricated on Glass, Paper or Plastics

Belal Batwa

EG-CHEMICAL ENGINEERING

Disclosed:

- T19458, Superhydrophobic Shape Memory Alloys, Methods of Making, and Methods of Use

Lily-Ageliki Elefteriadou

EG-CIVIL / COASTAL ENGINEERING, EG-ENG SCH SUSTAIN INFRST ENV

Disclosed:

- T19275, I-STREET Trademark

Licensed:

- A20930, Exclusive License, I-STREET Trademark

David Arnold

EG-CIVIL / COASTAL ENGINEERING, EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19269, Wireless Power for Buried Electronics
- T19270, Agricultural Drone Port

Optioned:

- A21040, Option, Agricultural Drone Port

Patents issued:

- T17570, Magnetoelectric Nanowire Based Antennas
 - ORD/UTIL
 - 17/430,948
 - 11,757,198
 - 9/12/2023

Cassidy Gibson

EG-COMPUTER / INFO SCI & ENG

Patents issued:

- T18199, Detecting Deep-Fake Audio Through Vocal Tract Reconstruction
 - ORD/UTIL
 - 17/443,654
 - 11,694,694
 - 7/4/2023

Juan Gilbert

EG-COMPUTER / INFO SCI & ENG

Licensed:

- A21054, Non-Exclusive License, Applications Quest: A Software Platform for Achieving Holistic Diversity in Admissions and Hiring (AU# 2004-030-04 for Reg TM)

Patents issued:

- T17592, Operator Monitoring And Engagement
 - ORD/UTIL
 - 16/841,891
 - 12,012,107
 - 6/18/2024

Seth Layton

EG-COMPUTER / INFO SCI & ENG

Disclosed:

- T19233, Identifying Deepfake Audio Using Breath Detection and Measurement

Wesly Menard

EG-COMPUTER / INFO SCI & ENG

Disclosed:

- T19394, Driver Awareness Interface

Prabhat Mishra

EG-COMPUTER / INFO SCI & ENG

Disclosed:

- T19196, Quantum Device Testing using Concurrent Assertions
- T19199, Quantum State Preparation using Feedback-based Steering
- T19202, Quantum Steering of Surface Error Correcting Codes
- T19316, Multicast Authentication in Network-on-Chip based Systems
- T19420, Measurement-Induced Steering of Variational Quantum Algorithms
- T19422, Quantum Benchmarking via Random Dynamical Quantum Maps
- T19423, Fast Quantum Characterization via Riemannian Optimization

Patents issued:

- T17721, Real-time Detection and Localization of DoS Attacks in NoC based SoC Architectures
 - ORD/UTIL
 - 16/913,850
 - 11,797,667
 - 10/24/2023

- T17756, Lightweight and Trust-Aware Routing in NoC Based SoC Architectures
 - ORD/UTIL
 - 16/934,612
 - 11,770,399
 - 9/26/2023
- T18332, Hardware-Assisted Malware Detecting Using Explainable Machine Learning
 - ORD/UTIL
 - 17/500,016
 - 11,829,475
 - 11/28/2023
- T18334, Hardware Trojan Detection Using Path Delay Based Side-Channel Analysis And Reinforcement Learning
 - ORD/UTIL
 - 17/543,034
 - 11,775,693
 - 10/3/2023

Allie Montague

EG-COMPUTER / INFO SCI & ENG, CJC-JOURNALISM

Disclosed:

- T19416, (V2V/B/P) software

Sahan Nelundeniyalage

EG-COMPUTER / INFO SCI & ENG

Disclosed:

- T19420, Measurement-Induced Steering of Variational Quantum Algorithms

Andrey Nikitin

EG-COMPUTER / INFO SCI & ENG

Disclosed:

- T19423, Fast Quantum Characterization via Riemannian Optimization

Daniel Olszewski

EG-COMPUTER / INFO SCI & ENG

Disclosed:

- T19233, Identifying Deepfake Audio Using Breath Detection and Measurement

Patents issued:

- T18202, Method, Apparatus, And Computer Program Product For Secure Two-Factor Authentication
 - ORD/UTIL
 - 17/446,023
 - 12,003,502
 - 6/4/2024

Jennifer Sheldon

EG-COMPUTER / INFO SCI & ENG

Patents issued:

- T18332, Hardware-Assisted Malware Detecting Using Explainable Machine Learning
 - ORD/UTIL
 - 17/500,016
 - 11,829,475
 - 11/28/2023
- T18334, Hardware Trojan Detection Using Path Delay Based Side-Channel Analysis And Reinforcement Learning
 - ORD/UTIL

- 17/543,034
- 11,775,693
- 10/3/2023

Thomas Shrimpton

EG-COMPUTER / INFO SCI & ENG

Patents issued:

- T18202, Method, Apparatus, And Computer Program Product For Secure Two-Factor Authentication
 - ORD/UTIL
 - 17/446,023
 - 12,003,502
 - 6/4/2024

Patrick Traynor

EG-COMPUTER / INFO SCI & ENG

Disclosed:

- T19233, Identifying Deepfake Audio Using Breath Detection and Measurement

Patents issued:

- T18199, Detecting Deep-Fake Audio Through Vocal Tract Reconstruction
 - ORD/UTIL
 - 17/443,654
 - 11,694,694
 - 7/4/2023
- T18202, Method, Apparatus, And Computer Program Product For Secure Two-Factor Authentication
 - ORD/UTIL
 - 17/446,023
 - 12,003,502
 - 6/4/2024

- T18246, Method, Apparatus, And System For Detecting Card Skimming Devices
 - ORD/UTIL
 - 17/447,092
 - 11,804,109
 - 10/31/2023

Kevin Warren

EG-COMPUTER / INFO SCI & ENG

Disclosed:

- T19233, Identifying Deepfake Audio Using Breath Detection and Measurement

Patents issued:

- T18199, Detecting Deep-Fake Audio Through Vocal Tract Reconstruction
 - ORD/UTIL
 - 17/443,654
 - 11,694,694
 - 7/4/2023

Hasini Witharana

EG-COMPUTER / INFO SCI & ENG

Disclosed:

- T19196, Quantum Device Testing using Concurrent Assertions

Kevin Butler

EG-COMPUTER / INFO SCI & ENG, EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19233, Identifying Deepfake Audio Using Breath Detection and Measurement

Patents issued:

- T18199, Detecting Deep-Fake Audio Through Vocal Tract Reconstruction
 - ORD/UTIL
 - 17/443,654
 - 11,694,694
 - 7/4/2023

Electrical and Computer Engineering

Toshikazu Nishida

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19444, A Fully Screen-Printed Process for the Fabrication and Integration of Flexible Microcavity Structures into Multi-functional Flexible Hybrid Electronics

Jose Principe

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19182, Adapting the Exploration Rate for Value-of-Information-Based Reinforcement Learning
- T19332, Learning Cellular Automata

Optioned:

- A20914, Option, HOSVD for Interpretable Representations of Perioperative Time Series and Prediction of Postoperative Outcomes

Md Mahfuz Al Hasan

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19406, Novel Explainable AI Metrics for the Inspection of Advanced IC Packages
- T19412, Revolutionize Image Reconstruction with Multimodal Fusion and Physics Informed Neural Network (FPIN)

Cameron Anderson

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19444, A Fully Screen-Printed Process for the Fabrication and Integration of Flexible Microcavity Structures into Multi-functional Flexible Hybrid Electronics

Navid Asadi-Zanjani

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19140, DeepICLogo v1: IC Optical Logo Image Database Version 1
- T19367, Inherent Fingerprint for IC Packaging Hardware Identification: Traceability and Security
- T19406, Novel Explainable AI Metrics for the Inspection of Advanced IC Packages
- T19411, Enhancing Hardware Security for Advanced Packaging Through Externally Activated Nanoelectromechanical Systems (NEMS)
- T19412, Revolutionize Image Reconstruction with Multimodal Fusion and Physics Informed Neural Network (FPIN)
- T19433, Photonic Integrated Circuits Hardware Fingerprint

Patents issued:

- T17733, Automatic Sharpness Adjustment For Imaging Modalities (Title Change)
 - ORD/UTIL
 - 16/923,255
 - 11,776,093
 - 10/3/2023
- T18100, Accelerated Segmentation for Reverse Engineering of Integrated Circuits
 - ORD/UTIL
 - 17/378,438
 - 11,893,742
 - 2/6/2024

Meysam Asghari

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19186, A 120GHz Passive Distributed Doubler with Integrated Tunable OOK/ASK Modulator and Constant Input Impedance
- T19363, A 12Gb/s, 120GHz Compact and Energy-Efficient Harmonic-OOK Modulator in 90nm SiGe BiCMOS
- T19364, A 240 GHz Compact and Efficient Transmitter Modulators using 65nm CMOS

Shah Zaib Aslam

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19186, A 120GHz Passive Distributed Doubler with Integrated Tunable OOK/ASK Modulator and Constant Input Impedance
- T19363, A 12Gb/s, 120GHz Compact and Energy-Efficient Harmonic-OOK Modulator in 90nm SiGe BiCMOS
- T19366, Efficient 140 GHz Scalable Array using “bit-on-RF” and novel APSK modulator and Heterogeneously Integrated Concept

Avanti Bhandarkar

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19256, Habituated Preferences-based Linguistic and Psychometric Analysis Framework for Natural Language Text

Swarup Bhunia

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19134, Fusion Intelligence: System and Methods to Combine Natural Intelligence with Artificial Intelligence in IoT Applications
- T19376, RSF: A LUT-based Reconfigurable Security Fabric for Securing IC Design Flow under a Zero Trust Model
- T19382, HAL: Hardware Based Licensing of AI Chips
- T19426, MBM-PUF: A Multi-Bit Memory-based Physically Unclonable Function

Licensed:

- A20627, Non-Exclusive License, RIPPER: Removal of IP and Programmable Replacement
- A20628, Non-Exclusive License, PASA: Programmable Application-Specific Array for Protecting Confidentiality and Integrity of Hardware IPs
- A20629, Non-Exclusive License, Automated Test-Pattern Generation Methods for Redacted IP

Patents issued:

- T17968, Predictive Joint Compression and Encryption for Images and Videos
 - ORD/UTIL
 - 17/154,554
 - 12,058,238
 - 8/6/2024
- T18039, Smart Infrastructures and First-Responder Network for Security and Safety Hazards
 - ORD/UTIL
 - 17/392,376
 - 12,024,201
 - 7/2/2024
- T18090, System and Method For A Battery On Wheels (BOW) For Charging Battery Operated Units
 - ORD/UTIL
 - 17/306,553
 - 12,049,151
 - 7/30/2024
- T18374, Steganography Of Hardware Intellectual Property
 - ORD/UTIL
 - 17/589,040
 - 12,026,290
 - 7/2/2024
- T18157, Defense of JTAG I/O Network
 - ORD/UTIL

- 17/303,648
- 11,856,096
- 12/26/2023
- T18445, Establishing Trust in Untrusted IC Testing and Provisioning Environment
 - ORD/UTIL
 - 17/662,399
 - 11,899,827
 - 2/13/2024
- T18641, Invisible Scan Architecture for Secure Testing Of Digital Design (REVISED TITLE)
 - ORD/UTIL
 - 18/152,209
 - 11,953,548
 - 4/9/2024
- T17966, Predictive Joint Compression and Encryption for Images and Videos
 - ORD/UTIL
 - 17/154,554
 - 12,058,238
 - 8/8/2024
- T18190, SARO: Scalable Attack-Resistant Obfuscation of Logic Circuits
 - ORD/UTIL
 - 17/443,815
 - 11,797,736
 - 10/24/2023
- T18360, Timed Unlocking and Locking of Hardware Intellectual Properties
 - ORD/UTIL
 - 17/549,184
 - 11,720,654
 - 8/8/2023

Liton Biswas

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19433, Photonic Integrated Circuits Hardware Fingerprint

Sharon Boamah

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19455, MCDM based handovers in Multi RAT networks

Christophe Bobda

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19219, DecryptStrapper + Dually Layered Deployment (v2)
- T19292, HARP for Near-Sensor Knowledge Inference from Video Scenes
- T19309, A Novel CMOS Galvanic Isolation Technique for VLSI and FPGA Safety
- T19225, Method and Apparatus for Contactless Delivery of Test Strips

Patents issued:

- T18275, High-Performance CNN Inference Model at the Pixel-Parallel CMOS Image Sensor
 - ORD/UTIL
 - 17/495,420
 - 11,800,258
 - 10/24/2023

Atri Chatterjee

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19376, RSF: A LUT-based Reconfigurable Security Fabric for Securing IC Design Flow under a Zero Trust Model
- T19382, HAL: Hardware Based Licensing of AI Chips
- T19426, MBM-PUF: A Multi-Bit Memory-based Physically Unclonable Function

Baibhab Chatterjee

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19284, Body-Coupled Communication and Energy Harvesting Smart Textile System for Next-Generation Wearables

Patrick Craig

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19140, DeepICLogo v1: IC Optical Logo Image Database Version 1
- T19406, Novel Explainable AI Metrics for the Inspection of Advanced IC Packages
- T19412, Revolutionize Image Reconstruction with Multimodal Fusion and Physics Informed Neural Network (FPIN)

Vernon Crasto

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19269, Wireless Power for Buried Electronics

Hamed Dalir

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19267, Multiplexed Orbital Angular Momentum Beams Demultiplexing via 4F-based Fourier Optics Convolutional Neural Network
- T19367, Inherent Fingerprint for IC Packaging Hardware Identification: Traceability and Security
- T19433, Photonic Integrated Circuits Hardware Fingerprint

Aritra Dasgupta

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19134, Fusion Intelligence: System and Methods to Combine Natural Intelligence with Artificial Intelligence in IoT Applications
- T19376, RSF: A LUT-based Reconfigurable Security Fabric for Securing IC Design Flow under a Zero Trust Model

Licensed:

- A20628, Non-Exclusive License, PASA: Programmable Application-Specific Array for Protecting Confidentiality and Integrity of Hardware IPs
- A20629, Non-Exclusive License, Automated Test-Pattern Generation Methods for Redacted IP

Patents issued:

- T18360, Timed Unlocking and Locking of Hardware Intellectual Properties
 - ORD/UTIL
 - 17/549,184
 - 11,720,654
 - 8/8/2023

Reiner Dizon-Paradis

EG-ELECTRICAL / EG-COMPUTER

Patents issued:

- T18103, Drone-Based Administration Of Remotely Located Instruments and Gadgets
 - ORD/UTIL
 - 17/467,823
 - 11,978,023
 - 5/7/2024
- T18157, Defense of JTAG I/O Network
 - ORD/UTIL
 - 17/303,648
 - 11,856,096
 - 12/26/2023

Farimah Farahmandi

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19318, ActiWate: Adaptive and Design-agnostic Active Watermarking for IP Ownership in Modern SoCs

Patents issued:

- T17768, Method, Apparatus and Computer Program Product For Protecting Confidential Integrated Circuit Design
 - ORD/UTIL
 - 16/924,919
 - 11,704,415
 - 7/18/2023

Justin Folden

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19358, FoveaSPAD: Towards Depth and Memory Foveation for SPAD Cameras

Domenic Forte

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19268, Self-Destructive Polymorphic Latch for Protection Against Physical Attacks
- T19288, Hands-On Introduction to AI in Hardware Security: IC Reverse Engineering using Image Processing, Computer Vision, and Machine Learning

Patents issued:

- T18495, LDO-Based Odometer To Combat IC Recycling
 - ORD/UTIL
 - 17/808,185
 - 12,026,001
 - 7/2/2024
- T17733, Automatic Sharpness Adjustment For Imaging Modalities (Title Change)
 - ORD/UTIL
 - 16/923,255
 - 11,776,093
 - 10/3/2023
- T18100, Accelerated Segmentation for Reverse Engineering of Integrated Circuits
 - ORD/UTIL
 - 17/378,438
 - 11,893,742
 - 2/6/2024
- T18320, Biometric Locking Methods and Systems For Internet Of Things And The Connected Person
 - ORD/UTIL
 - 17/544,453
 - 11,989,273

- 5/21/2024
- T17664, Hardness Amplification of Physical Unclonable Functions (PUFS)
 - ORD/UTIL
 - 16/841,873
 - 11,799,673
 - 10/24/2023

Baoyun Ge

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19465, Variable Pole Electrostatic Machines

Shajib Ghosh

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19140, DeepICLogo v1: IC Optical Logo Image Database Version 1
- T19406, Novel Explainable AI Metrics for the Inspection of Advanced IC Packages
- T19412, Revolutionize Image Reconstruction with Multimodal Fusion and Physics Informed Neural Network (FPIN)

Dipal Halder

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19382, HAL: Hardware Based Licensing of AI Chips

Junjun Huan

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19134, Fusion Intelligence: System and Methods to Combine Natural Intelligence with Artificial Intelligence in IoT Applications

Sunghyun Hwang

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19415, Ultra Thin Smart Electropalatography System To Assist Linguistic and Medical Diagnosis
- T19425, Dry mode metal-assisted chemical etching (D-MaCE) process, apparatus, and applications.

Zahin Ibnat

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19318, ActiWate: Adaptive and Design-agnostic Active Watermarking for IP Ownership in Modern SoCs

Hanna Jang

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19211, High Efficiency Far-field mmWave-based Wireless Power Transfer System Using Cu/Co Metaconductor
- T19380, Miniaturized Highly-Efficient Substrate Integrated Waveguide (SIW) Cavity Slot Antenna at 28GHz Based on Through Fused-Silica Via (TFS) Technology

Saeyeong Jeon

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19391, Metaconductor Heterostructures for Enhanced Skin Effect Suppression in RF Devices
- T19415, Ultra Thin Smart Electropalatography System To Assist Linguistic and Medical Diagnosis

Ziqi Jia

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19415, Ultra Thin Smart Electropalatography System To Assist Linguistic and Medical Diagnosis

Jack Judy

EG-ELECTRICAL / EG-COMPUTER

Patents issued:

- T17424, Reliable Miniature Implantable Connector with High Channel Density and Methods of Using the Same
 - ORD/UTIL
 - 17/282,894
 - 11,990,704
 - 5/21/2024

Jake Julia

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19140, DeepICLogo v1: IC Optical Logo Image Database Version 1

Rohan Reddy Kalavakonda

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19134, Fusion Intelligence: System and Methods to Combine Natural Intelligence with Artificial Intelligence in IoT Applications

Patents issued:

- T18021, Multi-Level Battery Systems For Battery-Operated Entities, Methods For Rapid Charge Transfer Therebetween, And Methods For Optimizing Entity Routing And Network Charge Distribution
 - ORD/UTIL
 - 17/193,469

- 12,049,151
- 7/30/2024

Muhammed Kawser Ahmed

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19219, DecryptStrapper + Dually Layered Deployment (v2)
- T19309, A Novel CMOS Galvanic Isolation Technique for VLSI and FPGA Safety

Adam Khalifa

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19135, Fabrication of Microelectrodes on CMOS Chip Sidewalls for Miniaturized Implantable Medical Devices
- T19246, A Method for Minimally-Invasive Injection of Wireless Implantable Medical Devices into Brain Tissue
- T19284, Body-Coupled Communication and Energy Harvesting Smart Textile System for Next-Generation Wearables

Aslam Khan

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19411, Enhancing Hardware Security for Advanced Packaging Through Externally Activated Nanoelectromechanical Systems (NEMS)

Mohammad Shafkat Mahmud Khan

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19367, Inherent Fingerprint for IC Packaging Hardware Identification: Traceability and Security

Hannah Kirkland

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19279, EODLA: Electro-Optical Linear Accelerator

Sanjeev Koppal

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19278, SpectralZoom: An Adaptive Resolution Hyperspectral Camera
- T19279, EODLA: Electro-Optical Linear Accelerator
- T19358, FoveaSPAD: Towards Depth and Memory Foveation for SPAD Cameras

Patents issued:

- T17686, Fast Foveation Camera and Controlling Algorithms
 - ORD/UTIL
 - 16/844,597
 - 11,800,205
 - 10/24/2023

Himanandhan Kottur

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19411, Enhancing Hardware Security for Advanced Packaging Through Externally Activated Nanoelectromechanical Systems (NEMS)

Pavan Mangipudi

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19455, MCDM based handovers in Multi RAT networks

Peter Mbua

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19292, HARP for Near-Sensor Knowledge Inference from Video Scenes

Janise McNair

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19455, MCDM based handovers in Multi RAT networks
- T19470, Hardware Security for Internet of Things and Wireless Sensor Networks

Payman Pahlavan

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19380, Miniaturized Highly-Efficient Substrate Integrated Waveguide (SIW) Cavity Slot Antenna at 28GHz Based on Through Fused-Silica Via (TFS) Technology

Maximillian Kealoha Panoff

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19219, DecryptStrapper + Dually Layered Deployment (v2)

Sudipta Paria

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19376, RSF: A LUT-based Reconfigurable Security Fabric for Securing IC Design Flow under a Zero Trust Model

Patents issued:

- T18641, Invisible Scan Architecture For Secure Testing Of Digital Design (REVISED TITLE)
 - ORD/UTIL
 - 18/152,209
 - 11,953,548
 - 4/9/2024

Habibur Rahaman

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19376, RSF: A LUT-based Reconfigurable Security Fabric for Securing IC Design Flow under a Zero Trust Model
- T19382, HAL: Hardware Based Licensing of AI Chips

Fahim Rahman

EG-ELECTRICAL / EG-COMPUTER

Patents issued:

- T17768, Method, Apparatus and Computer Program Product For Protecting Confidential Integrated Circuit Design
 - ORD/UTIL
 - 16/924,919
 - 11,704,415
 - 7/18/2023

Mridha Rahman

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19318, ActiWate: Adaptive and Design-agnostic Active Watermarking for IP Ownership in Modern SoCs

Antika Roy

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19406, Novel Explainable AI Metrics for the Inspection of Advanced IC Packages
- T19412, Revolutionize Image Reconstruction with Multimodal Fusion and Physics Informed Neural Network (FPIN)

Sourav Roy

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19268, Self-Destructive Polymorphic Latch for Protection Against Physical Attacks

Ivan Ruchkin

EG-ELECTRICAL / EG-COMPUTER, EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19372, Curating Naturally Adversarial Datasets for Learning-Enabled Medical Cyber-Physical Systems

Naoki Sawahashi

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19332, Learning Cellular Automata

Isaac Sledge

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19182, Adapting the Exploration Rate for Value-of-Information-Based Reinforcement Learning
- T19279, EODLA: Electro-Optical Linear Accelerator

Volker Sorger

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19267, Multiplexed Orbital Angular Momentum Beams Demultiplexing via 4F-based Fourier Optics Convolutional Neural Network

Greg Stitt

EG-ELECTRICAL / EG-COMPUTER

Licensed:

- A20629, Non-Exclusive License, Automated Test-Pattern Generation Methods for Redacted IP

Roozbeh Tabrizian

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19156, Wafer-Level-Packaged Silicon-Piezoelectric Resonator

Patents issued:

- T18166, Tunable And Switchable SAW-BAW Resonators

- ORD/UTIL
- 17/314,394
- 12,028,047
- 7/2/2024
- T18034, Digitally Tunable Acoustic Wave Resonators
 - ORD/UTIL
 - 17/173,919
 - 11,799,448
 - 10/24/2023
- T17968, Nano-Electro-Mechanical Tags for Identification and Authentication
 - ORD/UTIL
 - 17/154,554
 - 12,058,238
 - 8/6/2024

Mark Tehranipoor

EG-ELECTRICAL / EG-COMPUTER, EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19318, ActiWate: Adaptive and Design-agnostic Active Watermarking for IP Ownership in Modern SoCs

Patents issued:

- T17664, Hardness Amplification Of Physical Unclonable Functions (PUFS)
 - ORD/UTIL
 - 16/841,873
 - 11,799,673
 - 10/24/2023
- T17768, Method, Apparatus and Computer Program Product For Protecting Confidential Integrated Circuit Design
 - ORD/UTIL
 - 16/924,919
 - 11,704,415
 - 7/18/2023

Nitin Varshney

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19140, DeepICLogo v1: IC Optical Logo Image Database Version 1
- T19367, Inherent Fingerprint for IC Packaging Hardware Identification: Traceability and Security
- T19406, Novel Explainable AI Metrics for the Inspection of Advanced IC Packages
- T19412, Revolutionize Image Reconstruction with Multimodal Fusion and Physics Informed Neural Network (FPIN)

Hao Wang

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19267, Multiplexed Orbital Angular Momentum Beams Demultiplexing via 4F-based Fourier Optics Convolutional Neural Network
- T19433, Photonic Integrated Circuits Hardware Fingerprint

Shuo Wang

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19219, DecryptStrapper + Dually Layered Deployment (v2)

Patents issued:

- T18021, Multi-Level Battery Systems For Battery-Operated Entities, Methods For Rapid Charge Transfer Therebetween, And Methods For Optimizing Entity Routing And Network Charge Distribution
 - ORD/UTIL
 - 17/193,469

- 12,049,151
- 7/30/2024

Xiaoshan Wang

EG-ELECTRICAL / EG-COMPUTER,

Disclosed:

- T19352, Java Genie - AI Enhanced Espresso

Alexander Wilcher

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19391, Metaconductor Heterostructures for Enhanced Skin Effect Suppression in RF Devices

Ronald Wilson

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19256, Habituated Preferences-based Linguistic and Psychometric Analysis Framework for Natural Language Text
- T19288, Hands-On Introduction to AI in Hardware Security: IC Reverse Engineering using Image Processing, Computer Vision, and Machine Learning

Patents issued:

- T17733, Automatic Sharpness Adjustment For Imaging Modalities (Title Change)
 - ORD/UTIL

- 16/923,255
- 11,776,093
- 10/3/2023
- T18100, Accelerated Segmentation for Reverse Engineering of Integrated Circuits
 - ORD/UTIL
 - 17/378,438
 - 11,893,742
 - 2/6/2024

Damon Woodard

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19256, Habituated Preferences-based Linguistic and Psychometric Analysis Framework for Natural Language Text
- T19288, Hands-On Introduction to AI in Hardware Security: IC Reverse Engineering using Image Processing, Computer Vision, and Machine Learning

Patents issued:

- T17733, Automatic Sharpness Adjustment For Imaging Modalities (Title Change)
 - ORD/UTIL
 - 16/923,255
 - 11,776,093
 - 10/3/2023
- T18100, Accelerated Segmentation for Reverse Engineering of Integrated Circuits
 - ORD/UTIL
 - 17/378,438
 - 11,893,742
 - 2/6/2024
- T18320, Biometric Locking Methods and Systems For Internet Of Things And The Connected Person
 - ORD/UTIL
 - 17/544,453
 - 11,989,273
 - 5/21/2024

Jiachi Ye

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19267, Multiplexed Orbital Angular Momentum Beams Demultiplexing via 4F-based Fourier Optics Convolutional Neural Network
- T19433, Photonic Integrated Circuits Hardware Fingerprint

Bhagawat Baanav Yedla Ravi

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19459, Rapid Analysis Vehicle (RAV) for Security Exploration

Yong Yoon

EG-ELECTRICAL / EG-COMPUTER

Disclosed:

- T19211, High Efficiency Far-field mmWave-based Wireless Power Transfer System Using Cu/Co Metaconductor
- T19380, Miniaturized Highly-Efficient Substrate Integrated Waveguide (SIW) Cavity Slot Antenna at 28GHz Based on Through Fused-Silica Via (TFS) Technology
- T19391, Metaconductor Heterostructures for Enhanced Skin Effect Suppression in RF Devices
- T19415, Ultra Thin Smart Electropalatography System To Assist Linguistic and Medical Diagnosis
- T19425, Dry mode metal-assisted chemical etching (D-MaCE) process, apparatus, and applications.

Patents issued:

- T16086, Meander Line Slots for Mutual Coupling Reduction
 - CON

- 17/315,964
- 11,742,570
- 8/29/2023
- T18030, Cu/Co Based Metaconductor Array Antennas
 - ORD/UTIL
 - 17/230,347
 - 11/949,163
 - 4/2/2024
- T18407, High Efficiency Metasurface-Based Multi-Scale Wireless Power Transfer
 - ORD/UTIL
 - 17/705,734
 - 11,888,327
 - 1/30/2024

Sandip Ray

EG-ELECTRICAL / EG-COMPUTER, EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19382, HAL: Hardware Based Licensing of AI Chips
- T19459, Rapid Analysis Vehicle (RAV) for Security Exploration

Patents issued:

- T18445, Smart Infrastructures and First-Responder Network for Security and Safety Hazards
 - ORD/UTIL
 - 17/662,399
 - 12,024,201
 - 2/13/2024
- T18445, Establishing Trust in Untrusted IC Testing and Provisioning Environment
 - ORD/UTIL
 - 17/662,399
 - 12,024,201
 - 7/2/2024

Mark Sheplak

EG-ELECTRICAL / EG-COMPUTER, EG-MECHANICAL / AEROSPACE ENG

Patents issued:

- T17817, High-Frequency Reciprocal Transducer Calibration
 - ORD/UTIL
 - 17/036,766
 - 11,754,436
 - 9/12/2023

Jing Eric Du

EG-ENG SCH SUSTAIN INFRST ENV, EG-CIVIL / COASTAL ENGINEERING

Disclosed:

- T19418, Cost-Effective Augmentation of Sparse LiDAR Scans Through Adaptive Vision Techniques

Christopher Ferraro

EG-ENG SCH SUSTAIN INFRST ENV

Disclosed:

- T19238, Autoclaved Aerated Concrete Using MSWI Bottom Ash as an Aerating Agent

Patents issued:

- T16064, Waste to Energy Ash and Engineered Aggregate in Road Construction
 - DIV
 - 17/962,566
 - 11,859,355
 - 1/2/2024

Ronald Fick

EG-ENG SCH SUSTAIN INFRST ENV

Disclosed:

- T19128, Disclosure To the Public Of Development Code Of Project Sailfish
- T19130, Septic to Sewer Conversion Tool

Jose Maria Gonzalez Ondina

EG-ENG SCH SUSTAIN INFRST ENV

Disclosed:

- T19128, Disclosure To the Public Of Development Code Of Project Sailfish

Ashish Patel

EG-ENG SCH SUSTAIN INFRST ENV

Disclosed:

- T19238, Autoclaved Aerated Concrete Using MSWI Bottom Ash as an Aerating Agent

Kyle Riding

EG-ENG SCH SUSTAIN INFRST ENV

Disclosed:

- T19238, Autoclaved Aerated Concrete Using MSWI Bottom Ash as an Aerating Agent

Michael Rodgers

EG-ENG SCH SUSTAIN INFRST ENV

Disclosed:

- T19125, Wireless Drill Rod Transducer

Alexander Semenov

EG-ENG SCH SUSTAIN INFRST ENV

Disclosed:

- T19126, Machine Learning-Guided Annotation of Gas Chromatography Mass Spectrometry (GC-MS) Data Via Contextualized Optimization of Chemical Space
- T19312, Molecular Community Networking

Khiem Tran

EG-ENG SCH SUSTAIN INFRST ENV

Disclosed:

- T19322, 3D subsurface imaging with SPT

Pengxiang Xia

EG-ENG SCH SUSTAIN INFRST ENV

Disclosed:

- T19418, Cost-Effective Augmentation of Sparse LiDAR Scans Through Adaptive Vision Techniques

Yang Ye

EG-ENG SCH SUSTAIN INFRST ENV

Disclosed:

- T19418, Cost-Effective Augmentation of Sparse LiDAR Scans Through Adaptive Vision Techniques

Hengxu You

EG-ENG SCH SUSTAIN INFRST ENV

Disclosed:

- T19418, Cost-Effective Augmentation of Sparse LiDAR Scans Through Adaptive Vision Techniques

Engineering Administration

Ryan Gosse

EG-ENGINEERING ADMINISTRATION

Disclosed:

- T19397, Wave Rotor Enhanced Nuclear Propulsion Spacecraft for Human Exploration of Mars
- T19398, Space Propulsion System Modeling Program

Dylan Tallon

EG-ENGINEERING ADMINISTRATION

Disclosed:

- T19381, EdStream: An LTI App for Messaging and Collaboration in Virtual Learning Environments

Engineering Education

Ashish Aggarwal

EG-ENGINEERING EDUCATION

Disclosed:

- T19381, EdStream: An LTI App for Messaging and Collaboration in Virtual Learning Environments

Cameron Brown

EG-ENGINEERING EDUCATION

Disclosed:

- T19405, Coordinate (Revised Title)

Laura Cruz Castro

EG-ENGINEERING EDUCATION

Disclosed:

- T19405, Coordinate (Revised Title)

Amanpreet Kapoor

EG-ENGINEERING EDUCATION, EG-COMPUTER / INFO SCI & ENG, EG-ENGINEERING EDUCATION

Disclosed:

- T19175, Edugator: A Platform for Creating and Delivering Interactive Educational Content to Learners

Dustin Karp

EG-ENGINEERING EDUCATION

Disclosed:

- T19175, Edugator: A Platform for Creating and Delivering Interactive Educational Content to Learners

Prayuj Tuli

EG-ENGINEERING EDUCATION

Disclosed:

- T19175, Edugator: A Platform for Creating and Delivering Interactive Educational Content to Learners

Timothy Townsend

EG-ENVIRONMENTAL ENGINEER SCI

Patents issued:

- T13915, Membrane System to Treat Leachate and Methods of Treating Leachate
 - CON
 - 17/737,611
 - 11,865,498
 - 1/9/2024
- T16064, Waste to Energy Ash and Engineered Aggregate in Road Construction
 - DIV
 - 17/962,566
 - 11,859,355
 - 1/2/2024

Chang-Yu Wu

EG-ENVIRONMENTAL ENGINEER SCI

Patents issued:

- T15550, Bioaerosol Detection Systems and Methods of Use
 - CIP
 - 17/104,525
 - 11,845,997
 - 12/19/2023
- T18389, Bioaerosol Detection Systems and Methods of Use
 - CIP
 - 17/104,525
 - 11,845,997
 - 12/19/2023

Assel Aitkaliyeva

EG-MATERIALS SCI ENGINEERING

Disclosed:

- T19305, Machine Learning for Automating Selective Area Electron Diffraction Pattern Analysis

Josephine Allen

EG-MATERIALS SCI ENGINEERING

Disclosed:

- T19150, Engineered Cells for Use in Cell Crystal Technologies
- T19151, Cell Crystals: Bio-Metamaterials Made From Crystalline Arrays of Living Cells

Patents issued:

- T15907, Magnetic Particle Conjugates and Methods of Activating Cell Signaling
 - CON
 - 16/941,182
 - 11,730,972
 - 8/22/2023

Jennifer Andrew

EG-MATERIALS SCI ENGINEERING

Disclosed:

- T19371, GlcNAc as a Prebiotic Agent Against Multiple Oral Diseases

Patents issued:

- T17570, Magnetoelectric Nanowire Based Antennas
 - ORD/UTIL
 - 17/430,948
 - 11,757,198
 - 9/12/2023

James Baciak

EG-MATERIALS SCI ENGINEERING

Patents issued:

- T17349, Systems and Methods for Particle Portal Imaging
 - CON
 - 18/132,570
 - 11,975,219
 - 5/7/2024

Per Andreas Enqvist

EG-MATERIALS SCI ENGINEERING

Patents issued:

- T17349, Systems and Methods for Particle Portal Imaging
 - CON
 - 18/132,570
 - 11,975,219
 - 5/7/2024

Richard Hennig

EG-MATERIALS SCI ENGINEERING

Patents issued:

- T17838, High Temperature Lightweight Al-Fe-Si Based Alloys
 - ORD/UTIL
 - 16/933,581
 - 11,840,746
 - 12/12/2023

Kevin Jones

EG-MATERIALS SCI ENGINEERING

Disclosed:

- T19280, Oxidation Induced Conformal Epitaxy (OICE)

Ryan Need

EG-MATERIALS SCI ENGINEERING

Disclosed:

- T19411, Enhancing Hardware Security for Advanced Packaging Through Externally Activated Nanoelectromechanical Systems (NEMS)

Jyothier Nimmagadda

EG-MATERIALS SCI ENGINEERING

Patents issued:

- T17349, Systems and Methods for Particle Portal Imaging
 - CON
 - 18/132,570
 - 11,975,219
 - 5/7/2024

Juan Nino

EG-MATERIALS SCI ENGINEERING

Patents issued:

- T15244, Memristive Nanofiber Neural Networks
 - CON
 - 17/342,096
 - 11,941,515
 - 3/26/2024

Stephen Pearton

EG-MATERIALS SCI ENGINEERING

Optioned:

- A20853, Option, Low Cost Disposable Medical Sensor Fabricated on Glass, Paper or Plastics

Keon Sahebkar

EG-MATERIALS SCI ENGINEERING

Disclosed:

- T19411, Enhancing Hardware Security for Advanced Packaging Through Externally Activated Nanoelectromechanical Systems (NEMS)

Michael Tonks

EG-MATERIALS SCI ENGINEERING

Disclosed:

- T19397, Wave Rotor Enhanced Nuclear Propulsion Spacecraft for Human Exploration of Mars

Justin Watson

EG-MATERIALS SCI ENGINEERING

Disclosed:

- T19397, Wave Rotor Enhanced Nuclear Propulsion Spacecraft for Human Exploration of Mars

Peter Ifju

EG-MATERIALS SCI ENGINEERING, EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19237, Drone Tethered Autonomously Guided Fire Extinguisher
- T19373, Tri-rotor eVTOL Design

Gary Scheiffele

EG-MATERIALS SCI ENGINEERING, EG-PARTICLE ENGINEER RES CTR

Optioned:

- A21003, Option, Methods and Compositions for Minimizing X-Ray Scattering Artifacts

Sanjiv Samant

EG-MATERIALS SCI ENGINEERING, MD-RADIATION ONCOLOGY

Patents issued:

- T17349, Systems and Methods for Particle Portal Imaging
 - CON
 - 18/132,570
 - 11,975,219
 - 5/7/2024

*Mechanical and Aerospace Engineering***Oren Anderson**

*EG-MECHANICAL / AEROSPACE ENG***Disclosed:**

- T19277, Device for Extreme-environment Continuous and Optimal Directed Evolution Research (DECODER)

Thomas Angelini

*EG-MECHANICAL / AEROSPACE ENG***Disclosed:**

- T19150, Engineered Cells for Use in Cell Crystal Technologies
- T19151, Cell Crystals: Bio-Metamaterials Made From Crystalline Arrays of Living Cells

Licensed:

- A20963, Exclusive License, Perfusion Bioreactor Driven by Osmotic Pressure Gradients

Patents issued:

- T15529, High Speed 3D Printing System for Wound and Tissue Replacement
 - CON
 - 17/233,626
 - 11,766,823
 - 9/26/2023
- T15822, Valve Incorporating Temporary Phase Change Material
 - CON
 - 17/245,140
 - 11,964,422
 - 4/23/2024
- T16258, Organic Microgel System with Di- and Tri-Block Blends of Herschel-Buckley Fluid for 3d Printing of Sacrificial Support Structures
 - CON
 - 17/394,875
 - 11,753,538

- 9/12/2023
- T17141, Perfusion Bioreactor Driven by Osmotic Pressure Gradients
 - ORD/UTIL
 - 17/263,712
 - 11,879,119.
 - 1/23/2024
- T18618, Trademark for "LLS"
 - TM
 - 97/200,565
 - 7,376,933
 - 5/7/2024

Scott Banks

EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19421, An Upper Extremity Magnetic Resonance Dynamometer with Real-Time Feedback

Wenxuan Chai

EG-MECHANICAL / AEROSPACE ENG, PHHP-COM BIOSTATISTICS

Disclosed:

- T19439, Embedded Printing of Thick Structured Meat Constructs

Patents issued:

- T16380, Methods and Systems of Three Dimensional Printing
 - DIV
 - 17/527,790
 - 11,724,460
 - 8/15/2023
- T17610, Cross-Linkable Microgel Composite Matrix Bath For Embedded Bioprinting Of Perfusable Tissue Constructs
 - DIV

- 17/859,593
- 11,745,412
- 9/5/2023
- T17937, Injectable Composite Inks and Methods for Making and Using Thereof
 - ORD/UTIL
 - 17/150,038
 - 11,964,075
 - 4/23/2024

Yunxia Chen

EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19137, Sequential Dual Alignments of 2D Platelets in Composite and Composite Structure Printing

Carl Crane

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Patents issued:

- T15822, Valve Incorporating Temporary Phase Change Material
 - CON
 - 17/245,140
 - 11,964,422
 - 4/23/2024

Nicholas Eisman

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Disclosed:

- T19277, Device for Extreme-environment Continuous and Optimal Directed Evolution Research (DECODER)

Hugh Fan

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Disclosed:

- T19444, A Fully Screen-Printed Process for the Fabrication and Integration of Flexible Microcavity Structures into Multi-functional Flexible Hybrid Electronics

Patents issued:

- T15550, Bioaerosol Detection Systems and Methods of Use
 - CIP
 - 17/104,525
 - 11,845,997
 - 12/19/2023

Hitomi Greenslet

EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19313, Protocol of Image-Based Bone Density and Dimensional Measurements using Computed Tomography (CT)
- T19314, Bone Measurement Software
- T19428, Needle-Biopsy Device Enabling Tissue-Stiffness Detection for Cancer Screening

Optioned:

- A20954, Option, Protocol of Image-Based Bone Density and Dimensional Measurements using Computed Tomography (CT)

Mark Hanna

EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19333, A Sustainable Water Desalination System

Yong Huang

EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19137, Sequential Dual Alignments of 2D Platelets in Composite and Composite Structure Printing
- T19439, Embedded Printing of Thick Structured Meat Constructs
- T19313, Protocol of Image-Based Bone Density and Dimensional Measurements using Computed Tomography (CT)
- T19314, Bone Measurement Software

Optioned:

- A20954, Option, Protocol of Image-Based Bone Density and Dimensional Measurements using Computed Tomography (CT)

Patents issued:

- T15947, Three-Dimensional Printing of Reactive Materials Using Intersecting Jets
 - ORD/UTIL
 - 16/007,081
 - 11,731,343
 - 8/22/2023
- T16380, Methods and Systems of Three Dimensional Printing
 - DIV
 - 17/527,790
 - 11,724,460
 - 8/15/2023
- T16820, Coaxial Nozzle Configuration and Methods Thereof
 - DIV
 - 17/230,527
 - 11,826,311
 - 11/28/2023
- T17584, Three-Dimensional Printing Of Hydrophobic Materials In Fumed Silica Suspension
 - DIV
 - 17/870,424
 - 12,017,414
 - 6/25/2024
- T17601, Methods And Apparatuses For Freeform Additive Manufacturing Of Engineering Polymers
 - CON
 - 17/200,284
 - 11,724,440

- 8/15/2023
- T17610, Cross-Linkable Microgel Composite Matrix Bath for Embedded Bioprinting of Perfusable Tissue Constructs
 - DIV
 - 17/859,593
 - 11,745,412
 - 9/5/2023
- T17937, Injectable Composite Inks and Methods for Making and Using Thereof
 - ORD/UTIL
 - 17/150,038
 - 11,964,075
 - 4/23/2024
- T17965, Methods and Apparatuses for Solvent-Assisted Polymer Direct Printing in Air
 - ORD/UTIL
 - 16/781,336
 - 11,759,999
 - 9/19/2023
- T18093, Systems, Methods, and Apparatuses for Printing 3D Metallic Parts from Powder Suspensions
 - ORD/UTIL
 - 17/915,408
 - 11,833,586
 - 12/5/2023

James Klausner

EG-MECHANICAL / AEROSPACE ENG

Patents issued:

- T17163, Porous Stabilized Beds, Methods of Manufacture Thereof and Articles Comprising the Same
 - CON
 - 17/210,742
 - 11,705,255
 - 7/18/2023

Dylan Leong

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Disclosed:

- T19428, Needle-Biopsy Device Enabling Tissue-Stiffness Detection for Cancer Screening

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Disclosed:

- T19277, Device for Extreme-environment Continuous and Optimal Directed Evolution Research (DECODER)

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Disclosed:

- T19277, Device for Extreme-environment Continuous and Optimal Directed Evolution Research (DECODER)

Renwei Mei

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Patents issued:

- T17163, Porous Stabilized Beds, Methods of Manufacture Thereof and Articles Comprising the Same

- CON
- 17/210,742
- 11,705,255
- 7/18/2023

Amor Menezes

EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19150, Engineered Cells for Use in Cell Crystal Technologies
- T19151, Cell Crystals: Bio-Metamaterials Made From Crystalline Arrays of Living Cells
- T19206, An N-State Generalized Genetic Toggle Switch
- T19277, Device for Extreme-environment Continuous and Optimal Directed Evolution Research (DECODER)

Raymond Millero

EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19472, Laparoscopic Surgical Device for Canines

Saeed Moghaddam

EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19220, Method of Implementing Membrane Heat Sinks in Computer Servers Rack
- T19223, Manufacturing and Direct Die Attachment of Membrane Heat Sink (MHS)

Sean Niemi

EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19277, Device for Extreme-environment Continuous and Optimal Directed Evolution Research (DECODER)

Graham Olmsted

EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19122, Song Generator

Bing Ren

EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19439, Embedded Printing of Thick Structured Meat Constructs

Patents issued:

- T17965, Methods and Apparatuses for Solvent-Assisted Polymer Direct Printing in Air
 - ORD/UTIL
 - 16/781,336
 - 11,759,999
 - 9/19/2023
- T18093, Systems, Methods, and Apparatuses for Printing 3D Metallic Parts from Powder Suspensions
 - ORD/UTIL
 - 17/915,408
 - 11,833,586
 - 12/5/2023

Subrata Roy

EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19333, A Sustainable Water Desalination System
- T19397, Wave Rotor Enhanced Nuclear Propulsion Spacecraft for Human Exploration of Mars

Benjamin Ryder

EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19439, Embedded Printing of Thick Structured Meat Constructs

Ghatu Subhash

EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19120, Millipede Hopkinson Bar_CIP

Curtis Taylor

EG-MECHANICAL / AEROSPACE ENG

Patents issued:

- T15822, Valve Incorporating Temporary Phase Change Material
 - CON
 - 17/245,140
 - 11,964,422
 - 4/23/2024

Henry Tingle

EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19289, A Uncrewed Aerial Vehicle Water Separating Air Intake Device
- T19373, Tri-rotor eVTOL Design

Dane Ungurait

EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19313, Protocol of Image-Based Bone Density and Dimensional Measurements using Computed Tomography (CT)
- T19314, Bone Measurement Software
- T19428, Needle-Biopsy Device Enabling Tissue-Stiffness Detection for Cancer Screening

Optioned:

- A20954, Option, Protocol of Image-Based Bone Density and Dimensional Measurements using Computed Tomography (CT)

Renjing Wang

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Disclosed:

- T19439, Embedded Printing of Thick Structured Meat Constructs

Yibo Wang

EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19428, Needle-Biopsy Device Enabling Tissue-Stiffness Detection for Cancer Screening

Chuanshen Zhou

EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19313, Protocol of Image-Based Bone Density and Dimensional Measurements using Computed Tomography (CT)
- T19314, Bone Measurement Software

Optioned:

- A20954, Option, Protocol of Image-Based Bone Density and Dimensional Measurements using Computed Tomography (CT)

Ashok Kumar

EG-MECHANICAL / AEROSPACE ENG, MD-NEUROSCIENCE

Disclosed:

- T19258, Methods for use of Peristaltic Propulsion System

Jarvis He

EG-MECHANICAL / AEROSPACE ENG

Disclosed:

- T19277, Device for Extreme-environment Continuous and Optimal Directed Evolution Research (DECODER)

Hannah Roberts

EG-MECHANICAL / AEROSPACE ENG, RE-GENETICS INSTITUTE

Disclosed:

- T19277, Device for Extreme-environment Continuous and Optimal Directed Evolution Research (DECODER)
- T19206, An N-State Generalized Genetic Toggle Switch

Mechanical Engineering

Alec Castro

EG-MECHANICAL, EG-COMPUTER

Disclosed:

- T19352, Java Genie - AI Enhanced Espresso

Landon McIntosh

EG-MECHANICAL, EG-COMPUTER

Disclosed:

- T19352, Java Genie - AI Enhanced Espresso