

Computer/Software/Electrical Engineering Technology Showcase Projects

Spring 2019

Computer Engineering Department

BS Computer Engineering/BS Software Engineering

Big Data/Data Science/AI

MusicAI

Steven Guan (BSSE), Thomas Luong (BSSE), Hiep Nguyen (BSSE), Jose Sandoval (BSSE)

Project Advisor: Fabio Di Troia

NFL Predictions

David Huynh (BSSE), Tommy Lin (BSSE), Monty Saengsavang (BSSE), Kevin Tieu (BSSE)

Project Advisor: Fabio Di Troia

Blockchain

Alethia

Vincent Diep (BSSE), Jenil Thakker (BSSE), Jonathan Van (BSSE)

Project Advisor: Younghee Park

Blockchain Car ID & Analytics

David Bit-heydari (BSCMPE), Phillip Rognerud (BSSE), Shawn Darrel Suarez (BSSE), Dominic Varakukala (BSSE)

Project Advisor: Gokay Saldamli

VeriPic

Riley Chetwood (BSSE), Chad Gorham (BSSE), Joleena Marshall (BSSE), Eric Scaramuzzo (BSSE)

Project Advisor: Fabio Di Troia

AdTractor: A decentralized advertising network

Tuan Anh Le (BSSE), Cameron Taylor (BSSE), Tsering Dolkar (BSSE), Jiahao Liu (BSSE)

Project Advisor: Fabio Di Troia

Healthcare

Ally

Dominic Dinh (BSSE), Alex Frank (BSSE), Filip Koperwas (BSSE)

Project Advisor: Badari Eswar

Smart City

BayPass - Mobile Transit Solution

Ayesha Khan (BSSE), Zhe Li (BSSE), Tim Roesner (BSSE), Hua Tong (BSSE)

Project Advisor: Mike Wu

Clean Street Smart City

Chris Chuck (BSSE), Himanshu Mehta (BSSE), Ritika Singhal (BSSE), Sophia Tan (BSSE)

Project Advisor: Jerry Gao

Earthquake Early Warning

Robert Campbell (BSSE), Tai Dao (BSSE), Patrick Garcia (BSCMPE), Vivian Leung (BSSE)

Project Advisor: Ron Mak

Firefighter Finder

Luke Dillon (BSSE), Zijian Guan (BSSE), Troy Kurniawan (BSCMPE), William Wong (BSCMPE)

Project Advisor: Kaikai Liu

Grouch.io

Mitch Avery (BSCMPE), Ryan Moore (BSCMPE), Charles Leon (BSSE), Aaron John (BSSE)

Project Advisor: Badari Eswar

Improving Pedestrian Safety Using Smart Camera

Jesus Alvarez (BSCMPE), Ziyun He (BSSE), Jeong Ook Moon (BSCMPE)

Project Advisor: Kaikai Liu

NeighborGood

Quang Tiep Du (BSSE), Yihua Li (BSSE), Renjie Ye (BSSE), Shunyu Zhao (BSSE)

Project Advisor: Fabio Di Troia

Search and Rescue Hexapod

Tri Pham (BSCMPE), Huy Tran (BSCMPE), Minh Quan Tran (BSCMPE), Toan Tran (BSCMPE)

Project Advisor: Frank Lin

Sense

Devanshi Sukhadia (BSSE), Sara Akhtar (BSSE), Cindy Ho (BSSE), Junia Ikeh (BSSE)

Project Advisor: Ahmed Banafa

Sign Language Companion Translator

Jesse Chen (BSCMPE), Linda Nguyen (BSCMPE), Danny Nuch (BSCMPE), Preyrna Yadav (BSCMPE)

Project Advisor: Magdalini Eirinaki

SJSUList

Atef Alrwashdeh (BSSE), Jorge Murillo Carranza (BSSE), Tahsin Hossain (BSSE), Saad Siddiqui (BSSE)

Project Advisor: Fabio Di Troia

Smart Attendance Tracker

Akash Vachhani (BSCMPE), Priyank Varshney (BSCMPE), Albert Zarate (BSCMPE)

Project Advisor: Frank Lin

Spartan Park

Peter Hwang (BSSE), Steven Louie (BSSE), Nicholas Mangoba (BSCMPE), Hun Zaw (BSSE)
Project Advisor: Badari Eswar

TraffSkip

Phat Nguyen (BSSE), Steven Cao (BSSE)
Project Advisor: Kaikai Liu

Website for House Listing

Viet Nguyen (BSSE), Hoa Nguyen (BSSE), Quy Nguyen (BSSE), Minh Ngo (BSSE)
Project Advisor: Ron Mak

Where is My Car

Nguyen Bui (BSSE), Che Liu (BSSE), Xueli Yang (BSSE), Yanyan Yang (BSSE)
Project Advisor: Fabio Di Troia

Home/Office Automation**Facial Recognition for Smart Door Locks**

Ameer Ali (BSSE), Ajay Curam (BSSE), Nicholas Kaiser (BSCMPE), Ryan Will (BSSE)
Project Advisor: Preetpal Kang

Multi-Agent Autonomous Cleaner Robots

Gabriel Baki (BSSE), Kimberly Flores (BSSE), John Milam (BSSE), Nikkitha Ravi (BSCMPE)
Project Advisor: Preetpal Kang

Real Time Smart Factory

Kristoffer Duque (BSCMPE), Derick Luong (BSCMPE), Kyle Ma (BSCMPE), Justin Stokes (BSCMPE)
Project Advisor: Kaikai Liu

User Programmable Composite Oven

David Brassfield (BSSE), Chad Palmer (BSCMPE), Nicholas Ramirez (BSCMPE)
Project Advisor: Frank Lin

Web-based Financial Management Service

Shivangi Agarwal (BSSE), Crystle Johnson (BSSE), Sandya Manickam (BSCMPE), Ira Sharma (BSSE)
Project Advisor: Ahmed Banafa

Application**Genio**

Bruce Lin (BSSE), Jennifer Nguyen (BSSE), Nhat Trinh (BSSE), Truc Vo (BSSE)
Project Advisor: Fabio Di Troia

LearnUp

Shayan Ahmed (BSSE), Ian Duron (BSSE)
Project Advisor: Gheorghii Guzun

MRS: A Video Game Console

Maytinee Apiwansri (BSCMPE), Regine Firmeza (BSCMPE), Stefanie Lau (BSCMPE)

Project Advisor: Frank Lin

TuTour

Alan Boo (BSSE), Josh Kardos (BSSE), Philip Nguyen (BSCMPE), Gideon Ubaldo (BSSE)

Project Advisor: Kaikai Liu

Formation Viewer

Lianshi Gan (BSSE), Samuel Lau (BSCMPE), Matthew Morin (BSSE), Sanjana Shetty (BSSE)

Project Advisor: Robert Bruce

MentorCrowd

Andrew Kyu (BSCMPE), Cindy Wang (BSCMPE), Stephen Lawrence (BSCMPE)

Project Advisor: Gheorghii Guzun

Hardware Design

PID FPGA Implementation

Matthew McCormick (BSCMPE), Wyatt Ogden (BSCMPE)

Project Advisor: Ahmet Bindal

SJSU Robotics - Mimic Arm Controller

Ari Koumis (BSCMPE), Zackery Plovanic (BSCMPE), Raul Cardona (BSCMPE), Allen Van (BSCMPE)

Project Advisor: Frank Lin

Computer Engineering Department

MS Computer Engineering/MS Software Engineering

Big Data/Data Science/AI

A Machine Learning Based Support Ticket Management System with Easy-to-Integrate Plug-in

Ankit Bharadiya (MSSE), Madhurika Joshi (MSCMPE), Rajan Mishra (MSCMPE), Rutvik Pensionwar (MSSE)

Project Advisor: Gheorghii Guzun

Applying Sonification to Code Quality and Data Mining: The Music Is the Message

Steve Stilson (MSSE)

Project Advisor: Weider Yu

Artificial Fashion Synthesis using Generative Adversarial Networks

Srinivasan Desikan (MSCMPE), Shivangi Gupta (MSCMPE), Keerthana Manjunatha (MSCMPE), Sannisth Soni (MSSE)

Project Advisor: Magdalini Eirinaki

Banking Transaction Recommendation Engine

Venkata Rishith Rayal Dande (MSSE), Venkateswara Raju Datla (MSCMPE), Pranith Kiran Kouda (MSSE), Sri Harsha Vanga (MSSE)

Project Advisor: Richard Sinn

Drone Based ML Training Dataset Collection

Yue Yin (MSSE), Ye Yuan (MSSE), Yiming Zhai (MSSE)

Project Advisor: Charles Zhang

EventPlus - AI and ML powered event management for enterprise

Divya Bharti (MSSE), Manvitha Challagundla Varadarajula (MSSE), Arshiya Sethi (MSSE), Manasi Vinay Thakur (MSSE)

Project Advisor: Rakesh Ranjan

FiscalBook-ML powered governance and regulation for SMBs

Maulik Bhatt (MSSE), Palash Hedau (MSSE), Aman Ojha (MSSE), Mangesh Tak (MSSE)

Project Advisor: Rakesh Ranjan

Forecasting of SMEs Financial Status With Socio-Economic Data

Rajvi Modh (MSSE), Chandan Paranjape (MSSE), Keval Nimeshkumar Shah (MSSE), Sunnykumar Hemantkumar Udhani (MSSE)

Project Advisor: Weider Yu (Ishie Eswar)

Image Descriptor Model using NLP

Shantagouda Kuntoji (MSSE), Rajeev Vilas Patil (MSSE), Prasun Saxena (MSSE), Abhishek Yadav (MSSE)

Project Advisor: Dan Harkey

Intelligent Music Composer

Hunter Hsieh (MSSE), Liu Hsien Fang (MSSE), Tsung-Min Huang (MSSE), Jiaqi Qin (MSSE)

Project Advisor: Magdalini Eirinaki

Keyword Spotting - Audio and Video Analysis

Zeeshan Ali (MSSE), Vasu Bansal (MSSE), Mandipsinh Gohil (MSSE), Anav Sharma (MSSE)

Project Advisor: Dan Harkey

LawyerUp - AI Powered Chatbot to Find Lawyers

Sanjay Karnati (MSSE), Vinod Katta (MSSE), Hari Krishna Pariveda (MSSE), Vishal Vannada (MSSE)

Project Advisor: Charles Zhang

Machine Learning Methods for Urban Traffic

Rohan Kelkar (MSSE), Pavan Kothawade (MSSE), Pritam Meher (MSSE), Ishaan Singh (MSSE)

Project Advisor: David Anastasiu

MARK - A Platform for Big Data Analysis

Raghavendrakumar Anandan (MSCMPE), Mohit Shah (MSSE), Anshit Sobti (MSSE), Kshitij Sood (MSSE)

Project Advisor: Younghee Park

ML Powered Analysis of Voters and Polls and Their Impact On Citizen Matrices

Abhijitsinh Umedsinh Chavda (MSSE), Akash Gupta (MSSE), Arijit Mandal (MSSE), Niyatkumar Shashikant Patel (MSSE)

Project Advisor: Rakesh Ranjan

Online Mobility Pattern Prediction

Trung Huynh (MSSE), Tri Ninh (MSSE), Tai Pham (MSSE), Yanjun Zang (MSSE)

Project Advisor: David Anastasiu

Pathfinder - ML Powered Career Profiler

Suhas Shivappa Hunsimar (MSSE), Ameya Vasantryao Nawale (MSSE), Saket Vinod Relan (MSSE), Hanisha Thirtham (MSSE)

Project Advisor: Rakesh Ranjan

Predictive Analytics on Stack Overflow Tags

Sampath Lakkaraju (MSSE), Shripal Modani (MSSE), Lakshmi Devi Palanivelu (MSCMPE), Rajeshri Dattatraya Sonwane (MSSE)

Project Advisor: Weider Yu (Richard Sinn)

Real-Time Traffic Light Detection and Tracking for Autonomous Vehicles

Virat Mathur (MSCMPE), Miraj Asit Patel (MSSE), Dixita Patodiya (MSSE), Anisha Vaghela (MSSE)

Project Advisor: Gheorghii Guzun

Recommendation System for Newly Released Movies

Rohan Athavale (MSSE), Madhur Gor (MSSE), Anurag Panchal (MSSE), Milind Ravindra Patel (MSSE)

Project Advisor: Gheorghii Guzun

Reinforcement Learning Accelerated Smart Scheduler Design

Chhavi Mehta (MSCMPE), Srividhya Prakash Rangarajan (MSCMPE), Badenkal Saurabh Ravindra (MSCMPE), Priyanka Subramanyam (MSSE)

Project Advisor: Hyeran Jeon

Smart Illegal Dumping Detection

Siddharth Chawla (MSCMPE), Akshay Dilip Ghodke (MSCMPE), Joshua Skow (MSCMPE), Vishal Govindraddi Yarabandi (MSCMPE)

Project Advisor: Hyeran Jeon

Training a Machine to Color a Black and White Image

Harika Reddy Billuri (MSCMPE), Sai Sree Vaishnavi Chittoori (MSCMPE), Tanmay Raoji Shinde (MSCMPE), Neeraj Venugopal (MSCMPE)

Project Advisor: Ron Mak

Vision Analytics on the Edge

Raghvendra Dixit (MSSE), Mithun Harikumar Nair (MSSE), Sahil Sharma (MSSE), Pavan Kumar Shekar (MSSE)

Project Advisor: Kaikai Liu

Vision Assistant

Anudeepa Dinesh (MSSE), Rakhee Anugrah Narayan Singh (MSSE), Indira Priyadarshini Bobburi (MSSE), Radhika Srinivasan (MSSE)

Project Advisor: Ron Mak

Vision Based GPU Enhanced Road Detection with Learning for Self-Driving

Santoso Danny (MSCMPE), Hang Huy (MSCMPE)

Project Advisor: Harry Li

Visual Search

Avadh Boriya (MSCMPE), Sai Supraja Malla (MSSE), Rikitha Manjunath (MSCMPE), Vineela Velicheti(MSCMPE)

Project Advisor: Magdalini Eirinaki

Blockchain

Blockchain Based Public Record System

Juan Chen (MSSE), Shaozhuo Jia (MSSE), Minglei Lu (MSSE), Shihan Wang (MSSE)

Project Advisor: Charles Zhang

Blockchain for digital libraries

Eya Badal Abdisho (MSSE), Shilakha Dawar (MSSE), Neville Mascarenhas (MSSE), Vinit Kumar Singh (MSSE)

Project Advisor: Gokay Saldamli

Blockchain-Based Food Safety System

Yifan Liang (MSSE), Dan Lu (MSSE), Yilin Miao (MSSE), Annan Wang (MSSE)

Project Advisor: Hungwen Li

Decentralized Certificate Verification Service Based on Hyperledger

Nishantkumar Vinaykumar Bhalani (MSCMPE), Anuj Harishkumar Chaudhari (MSSE), Jay Bankimchandra Desai (MSSE), Tejas Harshadbhai Panchal (MSSE)

Project Advisor: Younghee Park

Distributed File System Using Blockchain

Shikhar Gaur (MSSE), Viswanath Shivanand Kaddi (MSCMPE), Saloni Vijay Kajale (MSCMPE), Rohit Maheshwari (MSSE)

Project Advisor: Weider Yu (Richard Sinn)

Healthcare Services Using Blockchain Technology

Pavan Haravu Ramesh (MSCMPE), Jeevan Venkataramana (MSCMPE), Karthika Madhavanpillai Sasidharan Nair (MSCMPE), Roopashree Munegowda (MSCMPE)

Project Advisor: Gokay Saldamli

Identity Management using Blockchain

Sumedh Sunil Deshpande (MSCMPE), Sohil Sanjay Mehta (MSCMPE), Pranjali Sanjay Raje (MSCMPE), Madhuri Shiva Kumar (MSCMPE)

Project Advisor: Gokay Saldamli

Muirdoc - Blockchain Based Document Verification System

Manali Jain (MSSE), Varun Jindal (MSSE), Aartee Kasliwal (MSSE), Rudy Wahjudi (MSSE)

Project Advisor: Hungwen Li

OpenCloudChain - Decentralizing the Cloud utilizing Blockchain

Nikhilesh Chaudhary (MSSE), Phani Teja Kantamneni (MSSE), Arpit Mathur (MSSE), Arshiya Hayatkhan Pathan (MSSE)

Project Advisor: Simon Shim

Micropayment Channel using Ethereum

Mangesh Arunrao Ashtankar (MSCMPE), Niketa Mane (MSCMPE), Parag Pangare (MSCMPE), Santrupti Malleshappa Sobarad (MSCMPE)

Project Advisor: Younghee Park

Parametric Insurance using AI and Blockchain

Jainul Patel (MSSE), Divyank Shukla (MSSE), Divya Kalidasan Thazhathethil (MSSE), Manasa Chandra Sekhar Yedire (MSSE)

Project Advisor: Hungwen Li

User authentication using Blockchain technology

Raj Mansukhbhai Baraiya (MSSE), Neha Jethani (MSSE), Varun Ketanbhai Shah (MSSE), Divyang Jayeshkumar Soni (MSSE)

Project Advisor: Hungwen Li

Transparency in Pharmaceutical Supply Chain Management using Blockchain

Abhineet Gupta (MSSE), Anshul Patni (MSSE), Shashank Singh (MSSE), Vineet Zunjarwad (MSSE)

Project Advisor: Richard Sinn

VoteChain using BlockChain Technology

Niral Koradia (MSSE), Amita Mathkar (MSSE), Prathmesh Parmar (MSSE), Pradnya Sham Thorat (MSSE)

Project Advisor: Dan Harkey

Hardware Design

Accelerated Machine Learning with FPGA

Thinh Lu (MSCMPE)

Project Advisor: Donald Hung

Braccetto - Smart Embedded Arm

Wen Yuen Chao (MSCMPE), Lorenzo Javier (MSCMPE), Navoday Singh Tomar (MSSE), Anjali Vijayaraghavan (MSSE)

Project Advisor: Harry Li

Robotic Observer for Security Enforcement (ROSE)

Andrew Javier (MSCMPE), Luis Otero (MSSE), Matthias Reimann (MSCMPE), Sarvpreet Singh (MSCMPE)

Project Advisor: Preet Kang

Home/Office Automation

Alexa and Chatbot for Student Advising

Ritika Chadha (MSSE), Aastha Kumar (MSSE), Anjana Pradeep (MSSE), Ujjval Soni (MSSE)

Project Advisor: Dan Harkey

Alexa Feed Me

Heli Desai (MSSE), Monank Savaliya (MSSE), Jigar Soni (MSSE), Ashish Virani (MSSE)
Project Advisor: Richard Sinn

Healthcare

Ally - A Virtual Assistant for Alzheimer Patients

Kalikalyan Dash (MSSE), Satish Kumar Gollaprolu (MSSE), Shantanu Gupta (MSSE), Shiva Kumar Padma (MSSE)
Project Advisor: Ishie Eswar

Orientation and Mobility for the Deaf and Hearing-Impaired

Umang Kakaiya (MSCMPE), Uttara Vishwas Kulkarni (MSSE), Vishweshkumar Patel (MSSE), Nikita Sengupta (MSSE)
Project Advisor: David Anastasiu

TotalHealth - An Android application to help you achieve fitness goals

Kajal Agarwal (MSSE), Gaurav Chandra Debnath (MSCMPE), Spriha Deshpande (MSCMPE)
Project Advisor: Gheorghii Guzun

Cloud/System Applications and Infrastructure

An Investigation on Analysis of Real-Time Data

Harsh Rajesh Patel Aka Chaudhari (MSSE), Prateek Sharma (MSSE), Varun Upadhyay (MSSE), Vijay Yadav (MSSE)
Project Advisor: Weider Yu (Ishie Eswar)

CampuSnap- A Personalized Campus Resource Platform

Xi Jiang (MSCMPE), Jason Lin (MSCMPE), Tai-Chun Wei (MSCMPE), Huayu Zheng (MSCMPE)
Project Advisor: Kaikai Liu

Cloudlet - Distributed Training Using Multiple GPUs

Omkar Kale (MSCMPE), Akil Khan (MSCMPE), Vishal Rajendra Shrivastava (MSCMPE), Abhilash Pandharinath Tuse (MSCMPE)
Project Advisor: Hyeran Jeon

Dish Master

Weiyu Jin (MSSE), Xiaoran Lin (MSSE), Ruifeng Sheng (MSSE), Mutian Wang (MSSE)
Project Advisor: Richard Sinn

Automating Microservices for Smarter Intrusion Detection

Tejas Chumbalkar (MSCMPE), Brandon Lee Gaerlan (MSSE), Yash Pamnani (MSCMPE), Karthik Thirugnanam Jagadeesan (MSCMPE)
Project Advisor: Younghee Park

Smart Load Balancing for Data Centers

Aravindhan Elayakumar (MSSE), Thejaswi Kampalli (MSSE), Amogh Ramaswamy (MSSE), Amey Sanjaykumar Totawar (MSSE)
Project Advisor: Hyeran Jeon

Smartan - The Virtual Assistant for SJSU

Akhil Bhavirisetty (MSSE), Sai Teja Desu (MSSE), Samhitha Yadav Mamindla (MSCMPE)

Project Advisor: Ishie Eswar

Socidia - Cloud-based Social Network Protection

Han Chen (MSSE), Wenqi Wang (MSSE), Shuyang Yu (MSSE), Na Yue (MSSE)

Project Advisor: Charles Zhang

Computer Engineering Department

MS Software Engineering (Special Session)

Similar and Hazy Photo Identification

Himangini Agrawal (MSSE), Sourabh Namilikonda (MSSE), Chidananda Pati (MSSE), Hrishikesh Rendalkar (MSSE)

Project Advisor: Ali Arsanjani

Retail Analytics using Access Points

Anu Sebastian Anu Sebastian (MSSE), Saloni Sharad Bhalerao (MSSE), Ravali Nagabandi (MSSE), Hemambujam Veeraraghavan (MSSE)

Project Advisor: Andrew Bond

Study Buddy

Manoj Kumar (MSSE), Yamini Muralidharen (MSSE), Shalini Narang (MSSE), Gyanesh Pandey (MSSE), Madhusudhana Somu (MSSE)

Project Advisor: Andrew Bond

Silver Snug - A Technology Companion for the Elderly

Nidhi Jamar (MSSE), Sindhu Goudru Shivanandappa Patil (MSSE), Anuradha Rajashekar (MSSE), Ashwini Shankar Narayan (MSSE)

Project Advisor: Andrew Bond

Pet Mate

Barkha Choithani (MSSE), Pratik Shivaji Dhumal (MSSE), Avleen Singh Khanuja (MSSE), Rupal Martin (MSSE), Tarun Shetty (MSSE)

Project Advisor: Andrew Bond

EazyDine

Harini Gobichettipalayam Balakrishnan (MSSE), Ravi Katta (MSSE), Anushri Srinath Aithal (MSSE), Sunder Thyagarajan (MSSE)

Project Advisor: Sanjay Garje

Intelligent Monitoring and Evaluation App for Children with Special Needs

Mudrita Chaturvedi (MSSE), Vidya Coimbatore Nand Kumar (MSSE), Anjana Eldo (MSSE), Anjana Kamath Miyar (MSSE)

Project Advisor: Sanjay Garje

A Crowdsourcing Cargo Delivery Sharing Service with Encrypted Block-Chain-Style Backend

Lin Cheng (MSSE), Sy Le (MSSE), Yu Xu (MSSE)

Project Advisor: Dave Hood

Intelligent Metric Discovery and Analysis

Swetha Chandrasekar (MSSE), Supreetha Ganapathi (MSSE), Puja Kawale (MSSE), Vijay Samuel (MSSE)

Project Advisor: Gopinath Vinodh

Smart Healthcare System

Gagandeep Singh (MSSE), Abhi Yelipeddi (MSSE)

Project Advisor: Chandra Vuppalapati

Electrical Engineering Department

BS Electrical Engineering

Embedded System Applications

AR Clothing Modeling Display

Oscar Ji (BSEE), Andrew Lu (BSEE), Walter Santisteban Garcia (BSEE)

Project Advisor: Chang Choo

Electronic Scarecrow

Noah Ancheta (BSEE), Nikita Lal (BSEE), Robert Novak (BSEE), Desmond Wong (BSEE)

Project Advisor: Sotoudeh Hamedi-Hagh

Home security system

Thant Zin Phyto (BSEE), Atanu Swarnkar (BSEE), Thaw Tin, Thaw Htet Zin (BSEE)

Project Advisor: Sotoudeh Hamedi-Hagh

Proximity Detector

Calvin Chang (BSEE), Yanbin Deng (BSEE), Andrew Huang (BSEE), James Shih (BSEE), Lucky Wen (BSEE)

Project Advisor: Sotoudeh Hamedi-Hagh

Smart medicine bottle

Gavin Mate (BSEE), Raphael Nolasco (BSEE), Kevin Richardson (BSEE)

Project Advisor: Ping Hsu

Smart pet feeder

Jorge Francisco (BSEE), Quan Le (BSEE), Hieu Ly (BSEE), Thoa Nguyen (BSEE)

Project Advisor: Chang Choo

Smart-Powered IOT Surveillance System

Cristian Chavez (BSEE), Kevin Leong (BSEE), Cho Thin (BSEE)

Project Advisor: Kwok Wong

Smart Sprinkler Controller

Amr Elsharief Elbakkay (BSEE), Steven Haertling (BSEE), Nihil Pudota (BSEE)

Project Advisor: Ping Hsu

The Jedi hand gesture car

Bailiang Kuang (BSEE), Ting Hui Lin (BSEE), Jennifer Ni (BSEE)

Project Advisor: Chang Choo

Electronic Devices

Ultra-low Power Bandgap Ref

Mikyong Chang (BSEE), Qiaoyun Sheng (BSEE), Jewel Sumabat (BSEE)

Project Advisor: Kwok Wong

Communication

Aviation Station Location Protection

Tristan Ellorin (BSEE), Naeem Mannan (BSEE), Anthony Pham (BSEE), Jiaxiang Xu (BSEE)

Project Advisor: Jonathan Ponniah

Light Data transmission system

Bedig Boghossian (BSEE), Raymond Domingos (BSEE), George Olagov (BSEE), Gray Robertson (BSEE)

Project Advisor: Sotoudeh Hamed-Hagh

Power Electronics

Power Converter for Electric Vehicle

Kyle Christensen (BSEE), Ricardo Portals (BSEE), Cody Russell (BSEE)

Project Advisor: Mohamed Badawy

Power generation using piezoelectric material

Carrie Gong (BSEE), Charlene Magang Sidze (BSEE), Simran Mahendrakar (BSEE)

Project Advisor: Kwok Wong

Solar Energy Harvesting for Vehicle

Kyle Bennett (BSEE), Thao Nguyen (BSEE), Armand Tenkeu (BSEE), Vuong Trinh (BSEE)

Project Advisor: Kwok Wong

Spartan Hyperloop

Samuel Lee (BSEE), Mari Tateishi (BSEE), Nathan White (BSEE)

Project Advisor: David Parent

Electrical Engineering Department

MS Electrical Engineering

Communication, Digital Signal Processing & Machine Learning

A Framework to Analyze Energy Efficiency of Multi-band Spectrum Sensing Algorithms

Jay Patel (MSEE)

Thesis Advisor: Birsen Sirkeci

A Regularized Ensemble of Classifiers for Gas Sensors

Jerrin Djugash (MSEE), Krishna Chaitanya Govardhanam (MSEE)

Project Advisor: Birsen Sirkeci

Classification of Hyperspectral Colon Cancer Images Using Convolutional Neural Networks

Sean Mobilia (MSEE)

Thesis Advisor: Birsen Sirkeci

Cubesat UHF beacon SDR receiver

Duc Nguyen (MSEE)

Project Advisor: Robert Morelos-Zaragoza

Deep Learning for Space-time Codes in MIMO Systems

Lavanya Talluru (MSEE)

Thesis Advisor: Birsen Sirkeci

Fully Convolutional Network based Model in Hyperspectral Image Analysis

Sheng Zhu (MSEE)

Project Advisor: Birsen Sirkeci

Small-length CRC codes and their applications in polar code decoding and RFID

Hongru Han (MSEE)

Project Advisor: Robert Morelos-Zaragoza

Improving the Performance of ML models for Predicting Fracture Strength of Porous Ceramics

Praneeth Varma Alluri (MSEE)

Project Advisor: Birsen Sirkeci

Multi-Level Hyperspectral Image Classification Across Subjects using Machine Learning

Chandrabhas Soman (MSEE)

Project Advisor: Birsen Sirkeci

Neural Networks to Analyze the Fracture Strength of Ceramics and Glasses

Shruthi Kondeti (MSEE), Suvid Anand (MSEE)

Project Advisor: Birsen Sirkeci

Signal Detection and Demodulation at the Wireless Physical Layer using Deep Learning

Toluwanimi Odemuyiwa (MSEE)

Thesis Advisor: Birsen Sirkeci

Signal Modulation Identification with Machine Learning on Over the Air Samples

Umar Sohi (MSEE)

Project Advisor: Birsen Sirkeci

Vision based GPU Enhanced Road Detection with Deep Learning for Self Driving

Minh Duc Ong (MSEE)

Project Advisor: Birsen Sirkeci

ASIC/VLSI Design Analog/Mixed-Signals ICs

A Low-Power 8 bit Pipeline ADC with 2.5b/Stage Built in TSMC 65nm Technology

Alexander DeHaan (MSEE)

Project Advisor: Sotoudeh Hamed-Hagh

Anomaly Detection System Using Machine Learning for Semiconductor Manufacturing Processes

Mrinmayi Gavali (MSEE), Chinmay Zare (MSEE)

Project Advisor: Lili He

DDR3 SRAM Memory Controller

Abhishek Phatak (MSEE), Rajesh Krishna Mundrupady (MSEE)

Project Advisor: Lili He

Design of 10 bit Successive Approximation Register ADC

Hoa Nguyen (MSEE)

Project Advisor: Sotoudeh Hamed-Hagh

Design of Low Noise Amplifier at 66GHz

Lava Kumar Bangalore (MSEE)

Project Advisor: Sotoudeh Hamed-Hagh

Design of a Power Amplifier for 5G Communication System at 60GHz

Xing Mao (MSEE)

Project Advisor: Sotoudeh Hamed-Hagh

Design of 60GHz SPDT Switch for FMCW Transceiver Frontend on 65nm CMOS Technology

Thi Le (MSEE)

Project Advisor: Sotoudeh Hamed-Hagh

An integrated Phase Shifter at 66 GHz in 65 nm technology

Khoa Huynh (MSEE)

Project Advisor: Sotoudeh Hamed-Hagh

66.6 GHz Variable Gain Amplifier Design in TSMC 65nm

Cuong Dao (MSEE)

Project Advisor: Sotoudeh Hamed-Hagh

Hardware Implementation of Activation Function for Neural Network using CORDIC Algorithm

Rakshith Anandkumar (MSEE), Ajay Mysore Nataraj (MSEE)

Project Advisor: Lili He

Machine Learning in TCAD for Semiconductor Fabrication Failure Troubleshooting

Bankapalli Yogeswara Sarat (MSEE)

Project Advisor: Hiu-Yung Wong

Noise Cancellation Using Windowing Technique

Lekhya Tata (MSEE), Karthik Govinda Raju (MSEE)

Project Advisor: Lili He

Op Amp Linearization Improvement for Wider Bandwidth Applications

Chad Santos (MSEE)

Project Advisor: Lili He

Signal Integrity Optimization of RF/Microwave Transmission Lines in Multilayer PCBs

Justin Le (MSEE)

Thesis Advisor: Lili He

Logic/Digital & Embedded Systems

CNN Image Optimizer with FPGA

Aditya Sanjay Sangawar (MSEE)

Project Advisor: Thuy Le

Digital PHY Layer Implementation of a Wideband RF Receiver Circuit

Indu Kollamparambil Sudheer (MSEE)

Project Advisor: Thuy Le

Dynamically Configurable Pixel Pipeline for FPGA

Eakta Anchlia (MSEE)

Project Advisor: Lili He

FPGA Implementation of Sensor Fusion algorithm for object localization

Hemant Banjara (MSEE), Akshay Kurli (MSEE)

Project Advisor: Chang Choo

FPGA Implementation of SHA-3-512 bits

Karan Kartik Pandya (MSEE), Mrunmay Kothale (MSEE)

Project Advisor: Lili He

FPGA implementation of Surround Vision System in Autonomous Vehicle

Disha Anil Patil (MSEE), Ankith Seetaram Shetty (MSEE)

Project Advisor: Chang Choo

Functional and Performance Verification of AXI using UVM

Hiral Patel (MSEE)

Project Advisor: Lili He

Functional and Performance Verification of Convolutional Neural Network Calculator

Sangeetha Murali Chengaloor (MSEE), Pallavi Nagaraju (MSEE)

Project Advisor: Lili He

Functional and Performance Verification of DDR3 Memory Controller using UVM

Rajesh Tukaram Pawar (MSEE), Omkar Rajendra Palaskar (MSEE)

Project Advisor: Chang Choo

Functional Verification of AHB Neural Network System

Ryan Morrison (MSEE), Sasank Shouri Yerragolla (MSEE)

Project Advisor: Lili He

Optimization of FPGA based Deep Neural Networks

Anusha Kanakaraja Gupta (MSEE), Lathashree Gangadharaiah (MSEE)

Project Advisor: Chang Choo

Reusable Verification IP for LCD Controller

Naveen Shridharan (MSEE), Tushar Upadhyaya (MSEE)

Project Advisor: Lili He

The Design and Verification of Fault Tolerant Processor Using Triple Modular Redundancy

Bhargav Shashidhara Pandit (MSEE)

Project Advisor: Thuy Le

Verification of Low Level Mac

Sai Rama Krishna Nalla (MSEE), Leeladhitya Kandanti (MSEE)

Project Advisor: Lili He

Network on Chip Verification using UVM

Deekshith Krishnegowda (MSEE), Namrata Deepakbhai Gadani (MSEE)

Project Advisor: Lili He

Networking

A Reputation Based Attack Mitigation/Filter

Shruti Mangipudi (MSEE), Lavanya Jagadish Hiremath (MSEE)

Project Advisor: Lili He

A Hierarchical Framework for Reducing Dynamical System Complexity

Alexander Yee (MSEE)

Project Advisor: Jonathan Ponniah

Aggregate Network Health Monitoring

Onkar Ravindra Deshpande (MSEE), Tushar Gokuldas More (MSEE)

Project Advisor: Juzi Zhao

Interface between Discrete Event-based and Discrete Time-based Simulators

Vipul Gargav (MSEE), Mridul Chopra (MSEE)

Project Advisor: Jonathan Ponniah

Creating virtual data center with secure VPC using AWS

Vihar Jayeshkumar Desai (MSEE), Zeel Vijaykumar Patel (MSEE)

Project Advisor: Juzi Zhao

Detection of DDos Attack

Rachel Shankar Kotrannavar (MSEE), Hardik Ashok Mehta (MSEE)

Project Advisor: Lili He

Deep Learning based Web Application Firewall

Arsheen Fathima Khatib (MSEE), Ruchi Raikuni (MSEE)

Project Advisor: Juzi Zhao

Performance Analysis of Application Based Network slicing

Mansi Rajeshbhai Vankawala (MSEE)

Project Advisor: Nader Mir

Design and Analysis of SDN-Based Data Center Networks

Shivani Bhat (MSEE), Khushboo Hirpara (MSEE)

Project Advisor: Nader Mir

Detection Of Smart Gray Hole attack using Machine Learning

Sunil Poyyagadde Rao (MSEE), Deepak Devaru Joshi (MSEE)

Project Advisor: Juzi Zhao

IDS Assistant for IoT Devices

Adithya Karthikeyan (MSEE), Namratha Venkatesh Murthy (MSEE)

Project Advisor: Juzi Zhao

Implementation of LACP in SDN-Based Data Center Network architectures using OPNET

Vinuthakumari Gunderi Prabhakar (MSEE), Jyothsna Narahari Bhatt (MSEE)

Project Advisor: Nader Mir

LACP Simulation in DCN

Mengxuan Wang (MSEE)

Project Advisor: Juzi Zhao

Bandwidth Analysis in Data Center Networks

Soumya Muralidhar (MSEE), Sayali Girish Kulkarni (MSEE)

Project Advisor: Nader Mir

Network Automation with Zero Touch Provisioning

Parvathi Chandrasekhar (MSEE), Karthikeya Remilla (MSEE)

Project Advisor: Jonathan Ponniah

Multi-layer Security using Containerized Network Functions for Software Defined Networking

Aarti Pathak (MSEE), Shyam Kumar Kadiyam (MSEE)

Project Advisor: Juzi Zhao

NET – Network Enhancement Tool for Monitoring and Troubleshooting Networks

Priyanka Peter Wania (MSEE), Poonam Nigade (MSEE)

Project Advisor: Lili He

Network Security Strategies

Akash Godbole (MSEE), Manish Ranjan Sahay (MSEE)

Project Advisor: Jonathan Ponniah

Network Health Monitoring and Forecasting using Deep Learning in Hybrid Cloud

Komal Uttamrao Patil (MSEE), Riddhiben Prajapati (MSEE)

Project Advisor: Jonathan Ponniah

Network Slicing Using SDN & NFV

Pournami Puthenpurayil Rajan (MSEE), Jagdeep Kaur (MSEE)

Project Advisor: Nader Mir

Performance Analysis of Link Aggregation in the Structure of Data Center Networks

Sharvari Potnis (MSEE), Arvind Chettiar(MSEE)

Project Advisor: Nader Mir

Phishlimiter: A Phishing Detection Approach Using Machine Learning Techniques.

Chaitrali Deshpande (MSEE), Jigar Makwana (MSEE)

Project Advisor: Juzi Zhao

Dynamic Routing Protocol in UAVs using Q-learning

Mrinali More (MSEE), Pranati Kulkarni (MSEE)

Project Advisor: Jonathan Ponniah

Routing in cluster based VANETs

Haely Shah (MSEE)

Project Advisor: Jonathan Ponniah

UAV Communication System

Karthikeya Gurudas Pai (MSEE), Nikhil Shivamurthy (MSEE)

Project Advisor: Jonathan Ponniah

Use of UAV Adhoc Networks for Handling Communication during Disasters

Isha Kadam (MSEE), Sheetal Shashikant More (MSEE)

Project Advisor: Jonathan Ponniah

Virtual network mapping in flexible optical networks

Lenin Reddy Posham (MSEE), Varsha Ajay Kohirkar (MSEE)

Project Advisor: Juzi Zhao

Web Server (WordPress Site) and Serverless Website hosting using AWS

Jinal Desai (MSEE), Rahi Patel (MSEE)

Project Advisor: Juzi Zhao

Controls and Power Electronics**PWM Control Implementation of Multilevel Converter for Electric Vehicle Applications**

Anthony Watson (MSEE)

Project Advisor: Mohamed Badawy

Design and Implementation of a Novel Multilevel Converter for Storage Cells Management in EVs

Neeshitha Sudhakar (MSEE)

Project Advisor: Mohamed Badawy

Digital Control for Cascaded Buck Boost Converter

Franklin Velasquez Alvarenga (MSEE)

Project Advisor: Mohamed Badawy

Operation and Control of Wireless Power Transfer System for Electric Vehicles

Na Na (MSEE)

Project Advisor: Mohamed Badawy

Optimization of PCB for a Cascaded Buck-Boost Converter for Power Factor Correction

Michael Lopez (MSEE)

Project Advisor: Mohamed Badawy

Partial Power Processing Architecture for a Partially Shaded PV String

Nitin George Thomas (MSEE)

Project Advisor: Mohamed Badawy