Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
Y86	061-110-G2	T	BehavSci	F	Zoe Stern & Raya Farber	What is the effect of color on the appearance and timing of afterimages?
Y88	061-210-91		PlantSci	F	Samantha Togliatti	Fish versus Soil.
Y89	061-220-51		PlantSci	F	Hemani Kamarshi	Monitoring Amounts of Vitamin C in Fruits When Cut and Left in a Refrigerator for Different Amounts of Time
Y90	061-230-11		PlantSci	F	Ada Yoder	Can plants survive without sunlight?
Y93	061-250-A1		PlantSci	F	Navaih Ruiz	Plant Light Maze
Y97	061-270-12	T	PlantSci	F	Kacie Le & Teresita Cortez	"How's it GROWing, plant?"
Y99	061-280-F1		PlantSci	F	Mia Jones	How Different Types of Water Affect the Growth of French Marigolds
P96	061-420-61		BiocheMic	F	Maryam Ismail	Eliminating the Zit: Finding an Effective Treatment for Exterminating Bacteria
P95	061-430-21		BiocheMic	F	Naisha John	What is the effect of heat pretreatment of milk and fermentation temperature on the fermentation speed of yogurt?
P94	061-440-F1		BiocheMic	F	Saanvi Bhargava	Sweet or Sour: Which Yogurt Culture Makes Better Yogurt at Home
P91	061-630-31		MedHeaSci	F	Diya Kumar	Organic: The Healthier Option or Just a Scam?
P85	062-A21-81		Chemistry	F	Sophia Liu	What Foods Mold The Fastest, And What We Can Do To Prevent It.
P82	062-A70-62	T	Chemistry	F	Vera Gan & Theodora Lei	Finding Sugar levels in different Ice cream brands
P79	062-A90-F2	T	Chemistry	F	Tamar Segev & Talya Schube & Julie Stein	Sugar Rush: Will using different types of sugar to make popular candies affect the texture?
P66	062-C50-F2	T	EarEnvSci	F	Reva Sharma & Rucha Mujumdar	Edible Membranes to Protect the Environment
N66	062-C60-C1		EarEnvSci	F	Shreya Ghoshal	Effect of Pesticides and Chlorine on Aquatic Life
N67	062-C70-81		EarEnvSci	F	Rebecca Sicotte	Carbon Dioxide's Effect on Air Temperature
N72	062-D20-31		PhysAstr	F	Hannah Grayeski	What is the ideal length for a mechanical pencil not to break?
N73	062-D21-11		PhysAstr	F	Oishee Bhattacharyya	The Effect of Propeller Length on Efficiency
N78	062-D40-C1		PhysAstr	F	Maya Schechtman	Magnetism and Temperature
N79	062-D41-A1		PhysAstr	F	Allison Gallegos	What is the effect of popcorn brand on the amount of kernels not popped?
N80	062-D50-81		PhysAstr	F	Samanya Girish	Novel and Accurate Method to Measure the Performance of a Linear Accelerator
M91	071-110-21		BehavSci	F	Airis Yeung	Colorful Perceptions
M90	071-120-F1		BehavSci	F	Niti Reddy	ColorMania
M85	071-140-62	T	BehavSci	F	Annabel Honigstein & Ariela Steinberg	Perception can be deception: What is the affect of age on selective attention?
M83	071-210-A2	T	PlantSci	F	Ruhi Batchu & Vyshnavi Katta	Watering Efficiently
M73	071-411-92	T	BiocheMic	F	Lillian Kaelber & Eva Talamantez	How does the amount of algae in water affect the size of the microorganism population?
M70	071-430-41		BiocheMic	F	Diya Kadadi	Bioplastics from Biowaste
M69	071-440-H1		BiocheMic	F	Lyla Elaydi	The effect of different coffee concentrations on the growth of E.coli
M68	071-450-D1		BiocheMic	F	Tanisha Gupta	What is the Effect of Different Levels of Insect Repellent Containing DEET on the Viability of bacteria found on humans?
M66	071-470-51		BiocheMic	F	Iffat Alamgir	The Effect of Nanosilver in Consumer Products on Daphnia Magna in Different pH's
L68	071-640-11		MedHeaSci	F	Sudeepthi Ravipati	Sunscreen Science
L69	071-660-A1		MedHeaSci	F	Safia Peer	What is the effect of cooking on the vitamin c content of potatoes?
L70	071-680-21		MedHeaSci	F	Manasvi Duggirala	Understanding the importance of healthy fats in repairing Myelin Sheath.
L72	071-711-22	T	BiomedEng	F	Diya Desai & Anika Dontu	Blood Filtration Device
L76	071-720-11		BiomedEng	F	Fatimah Ismail	Developing a Realistic Model of an Artificial Pancreas to Deal with Type 1 Diabetes

Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
L78	071-740-92	T	BiomedEng	F	Anushka Rala & Pranathi Ravipati & Sanjana Yeluri	Acoustics for ADHD
L88	072-A10-G1		Chemistry	F	Sreya Sreenivasan	Effect of water temperature on the brightness of luminol
L89	072-A20-C1		Chemistry	F	Meera Misra	Acid and Algae
L90	072-A21-A1		Chemistry	F	Himani Manjunath	Natural Water Purifier: Using Banana Peels to Remove Lead From Water
L91	072-A30-81		Chemistry	F	Aziza Mohammed	Investigating Kombucha biofilm as an alternative for other flexible materials
L96	072-A80-42	T	Chemistry	F	Claire Tsai & Aralyn Connolly	The effect of temperature and light exposure on pigments in picked leafy greens
K96	072-B20-41		CheEnvEng	F	Sharon Mathew	Reducing Global Warming Using Limestone
K93	072-B31-E2	T	CheEnvEng	F	Vedavi Kavoori & Nithya Appannagaari	Engineering a Flood Proof Safety Crate
K90	072-B41-B1		CheEnvEng	F	Isabelle Shay	Comparing Plants' Ability to Block Phosphate
K89	072-B42-91		CheEnvEng	F	Kelly Winter	Car Exhaust Filter
K85	072-B51-71		CheEnvEng	F	Gael Neighbors	Which type of starch makes a stronger bioplastic?
K84	072-B52-51		CheEnvEng	F	Sangyani Sinha	AquaWise: An Intelligent Irrigation System
K83	072-B60-51		CheEnvEng	F	Anagha Badriprasad	Biofuel: Testing Alternative Sources for Sustainable Biodiesel Production
K68	072-C21-B1		EarEnvSci	F	Elaine Lee	Impact of disposable water bottles on our oceans
K67	072-C22-91		EarEnvSci	F	Josephine Kwok	Iodide Content in Salt
J67	072-C32-51		EarEnvSci	F	Ashwini Paramesh	Can Sphagnum Moss clean our fresh water lakes and ponds?
J68	072-C40-51		EarEnvSci	F	Dashmi Singh	Agrofuel: The Future
J69	072-C41-31		EarEnvSci	F	Madeline Schumann	BiNodegradable
J70	072-C42-11		EarEnvSci	F	Nicole Tsioutsioulikli	The effect of the material at the bottom of the desalination device on the amount of the water produced by condensation.
J78	072-C61-C1		EarEnvSci	F	Ava Hultquist	Do cities make rivers dirtier? Measuring the change of biotoxicity and organic chemical content of my city's rivers
J80	072-C70-A1		EarEnvSci	F	Khadeejah Khan	Are green detergents safer for the environment compared to conventional detergents?
J81	072-C71-72	T	EarEnvSci	F	Ava Alexander & Ashukem Taku	Water on water?
J83	072-C72-61		EarEnvSci	F	Katrina Surprenant	Which easy water filter works best
J85	072-C90-21		EarEnvSci	F	Sonia Swamy	BioDeDye: An eco-friendly, low-cost, agro-waste biosorbent for the reduction of dye contaminants in aqueous wastes
J89	072-D10-91		PhysAstr	F	Nazle Rohim	Effect of Magnetic Fields on Water Flow
J90	072-D11-71		PhysAstr	F	Sasha Wang	Wom Wom Wom: The Effect the Length a Rear Car Window is Opened on the Loudness of Side Window Buffeting
J91	072-D20-51		PhysAstr	F	Hoshita Undella	Testing blade angles, number of blades and blade designs of a Wind Turbine for Maximum Voltage Output
J92	072-D21-31		PhysAstr	F	Wyndia Ohm	Mystery Spot: Does Physics, mainly those used by aerospace scientists contradict the claim of gravitational anomaly?
J93	072-D30-11		PhysAstr	F	Paulina Xu	A New Way Of Travel
J94	072-D31-G1		PhysAstr	F	Amrit Kohli	The Effect of Height and Friction on a Car's Ability to Make it Through a Loop
H98	072-D80-F1		PhysAstr	F	Nandana Shankar	Wingardium Leviosa: Make me fly!
H97	072-D90-B1		PhysAstr	F	Rhea Ahuja	Impact of Temperature on Magnetic Strength
H96	072-E10-11		ElecEng	F	Sanika Iyer	Creating a Smart Fridge Using RFID Sensors to Eliminate Food Wastage
H91	072-E30-A1		ElecEng	F	Rishita Shah	Comparing the Feasibility and Properties of Graphene and

Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
						Metal-based Capacitors as an Alternative to Batteries
H90	072-E31-81		ElecEng	F	Sudiksha Das	A Smart Solution to Prevent Drunk-Driving Accidents
H89	072-E40-61		ElecEng	F	Arushi Sharma	Energy Harnessing Lamp Fixure
H84	072-E70-A2	T	ElecEng	F	Tvisha Nepani & Saloni Shah	Sit Back and Chill, Epione's Got Your Pill
H82	072-E80-62	T	ElecEng	F	Anika Kulkarni & Mallika Ghante	No Wifi? No Problem!
H78	072-F11-81		MechEng	F	Noa Reyzblat	How will change the height of water dropping impact the amount of electricity created?
H73	072-F21-41		MechEng	F	Rebecca Kapiloff	Creating a Step stool for Shopping Carts
H72	072-F22-12	T	MechEng	F	Karen Glenn & Zoe Adler	Organize? No Problem; a Modular Locker Organization System
H68	072-F31-H1		MechEng	F	Micaela Swift	Engineering a Solar Oven
H67	072-F32-E2	T	MechEng	F	Dylan Kutcher & Sophie Rothstein	Making it Rainbow: Making Exact RGB Color Value Frosting
G66	072-F40-E2	T	MechEng	F	Caitlin Nguyen & Taylor Wong & Lauren Taffe	Smart Car Seat
G68	072-F41-D1		MechEng	F	Taylor Tam	What Effect Does the Angle of an Airplane Wing Have on Lift and Drag
G69	072-F50-A2	T	MechEng	F	Romina Blanco-Sarmiento & Sarah Honer & Miranda Gutierrez	Operation Cut Free (OCF)
G71	072-F51-91		MechEng	F	Elodie Tam	A Simple Human-Like Robotic Leg
G72	072-F52-71		MechEng	F	Jennifer Dick-Peddie	Designing an Autogyro to Accurately Deliver a Payload to a Designated Landing Zone with the Slowest Descent Rate
G76	072-F60-62	T	MechEng	F	Rosie Chen & Javeria Ahmed & Ynna Sophia Buriel	The Greenhouse of the future
G79	072-F62-22	T	MechEng	F	Shelby Schuberg & Stephanie Vu & Chaela Zaide	O.R.C.A
G88	072-F91-92	T	MechEng	F	Lilly Taback & Allison Gold	Dishwasher Safe Insulated Water bottle
G92	072-H11-91		SoftEng	F	Sumayyah Ismail	TRACK THAT CALORIE
G96	072-H30-31		SoftEng	F	Tanvi Chukka	A novel device to analyze stress levels in patients with immediate response
G97	072-H31-11		SoftEng	F	Sanskriti Singh	Detection of Pneumonia on CXR image using Convolutional Neural Networks with an emphasis on minimizing False Negatives
G98	072-H40-G1		SoftEng	F	Reshma Kosaraju	Application of Meteorological Data to Predict the Chances of a Forest Fire Using Machine Learning and Neural Networks
F99	072-H50-C1		SoftEng	F	Satvika Iyer	Where There's Smoke, There May Be Fire: Applying and Extending Google's ANN to Detect Wildfires
F93	072-H90-D1		SoftEng	F	Ananya Jilla	Machine Learning (ML) Driven Diabetes Predictor
F90	081-140-82	T	BehavSci	F	Michelle Jin & Arissa Huda	The Effect of Fear on Spacial Perception
F88	081-150-42	T	BehavSci	F	Ava Arasan & Laurie Jin	How Humour Affects the Learning Process
F81	081-180-92	T	BehavSci	F	Malak Dahbour & Mariem Cherif	Brain Power: Who has better memory? Who can decode it faster?
F79	081-190-61		BehavSci	F	Safaa Hussain	Reward, Praise, and Criticism: What Works Best?
F77	081-211-B1		PlantSci	F	Charlize Nishitoyo	The Comparative Effects of Container Size and Variable Light Intensities on the Growth Rates of Red Kidney Beans
F76	081-220-82	T	PlantSci	F	Smrithi Sambamurthy & Anika Muddu	Coral Reef Regneration
F73	081-230-42	T	PlantSci	F	Sara Bhowmick & Amrita Pasupathy	What is the Effect of Calcium on Wisconsin Fast Plants Watered with Fluoridated Tap Water for 15 Days
F71	081-240-H2	T	PlantSci	F	Sally Zhu & Eileen Ma	How Do Different Types of Bacteria Affect the Growth of Lepidium sativum?
F69	081-260-A1		PlantSci	F	Medha Bhattacharya	The effect of identifying tree health based on image analysis in the city of Sunnyvale
F68	081-270-61		PlantSci	F	Annmaria Antony	Does an increased concentration of silver nanoparticles affect plant growth rates?

Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
F67	081-280-21		PlantSci	F	Joyce Yang	What is the effect of food-waste on the growth rate of Allium fistulosum?
E66	081-310-51		AnimalSci	F	Maria Grothe	Do Acute Bladder Snails Have Memory That Enables Them To Learn?
E69	081-330-E1		AnimalSci	F	Ayana Wilmot	Chemotaxis of Daphnia major in Response to Amino Acids
E71	081-410-E1		BiocheMic	F	Namrata Nair	The Effect of Different Metal Nanoparticles on the Growth of E. coli
E72	081-411-C1		BiocheMic	F	Nikita Senthil	Feed the Diatoms: The Effect of Iron Filings on the Oxygen Production of Thalassiosira Diatoms
E76	081-420-92	T	BiocheMic	F	Connie Jiang & Riya Gupta	Problem-solving Capabilities of Physarum Polycephalum
E78	081-430-52	T	BiocheMic	F	Alisa Grebin & Nika Lebedev	What is the effect of Ferric Salts and Clay on chlorella vulgaris?
E80	081-431-41		BiocheMic	F	Akshara Taraniganty	Hunting For Electrolytes
E81	081-440-12	T	BiocheMic	F	Tiffany Chang & Jessica Tang	The Effect of Aloe on Skin Bacteria
E83	081-441-H1		BiocheMic	F	Lena Wessel	What is the effect of spices on the population growth of Escherichia coli K-12?
E84	081-450-E2	T	BiocheMic	F	Annli Zhu & Sabrina Zhu	The Effect of Water on the Strength of Retted Fiber
E91	081-490-G1		BiocheMic	F	Ayah Fallah	Myth or Reality: Is Henna Antibacterial?
E92	081-620-A2	T	MedHeaSci	F	Samvita Gautham & Katie Wang	Effects of Probiotics on Enteric Bacteria
E94	081-630-71		MedHeaSci	F	Zeynep Tokuz	Effects of Hazardous Chemicals on pregnancy: Using planaria as a model
E95	081-640-31		MedHeaSci	F	Ashwika Agrawal	An App to Identify Skin Infections in Canines
E98	081-680-41		MedHeaSci	F	Nidhya Shivakumar	A Machine Learning Approach to Evaluate the Long Term Health Effects Of Forest Fires
E99	081-730-G1		BiomedEng	F	Danica Kubota	Biodegradable Take - Out Sauce Containers.
D99	081-740-C1		BiomedEng	F	Arya Srivastava	One More Shot at Hearing: Making Cost Efficient Bone Conduction Technology to Aid People with Conductive Hearing Loss
D97	081-760-32	T	BiomedEng	F	Abhiritika Rala & Sofia Porras & Hannah Chen	The Nose Knows
D95	082-A10-H2	T	Chemistry	F	Ananya Bammi & Saavi Kumar	What is the Effect of Pool Water on Different Swimsuit Material Combinations
D88	082-A60-F1		Chemistry	F	Caitlin Higuchi	Does the Strength of Tea Relate to the Temperature of the Water in Which It is Brewed?
D85	082-B10-A1		CheEnvEng	F	Sanjana Manikandan	A Solution to Pollution - Mycoremediation: Growing Mushrooms to Clean the Air
D82	082-B30-12	T	CheEnvEng	F	Ein Hong & Lori Ching	Shower Power: Designing a Shower for Third World Countries
D78	082-B60-71		CheEnvEng	F	Eleanore Kirshner	No More Ocean Garbage: The Solution to Removing Microplastics
D77	082-B80-G1		CheEnvEng	F	Jia Gill	A Higher Breed of Hybrid Cars
D73	082-C10-12	T	EarEnvSci	F	Divya Sivakumar & Allison Lee	Effect of Wax Worms on Plastic Decomposition
C68	082-C31-91		EarEnvSci	F	Anushree Atmakuri	Effect of environmental change on songbird migration patterns
C73	082-C70-C1		EarEnvSci	F	Najia Maaz	More moisture, more movement!
C76	082-C80-81		EarEnvSci	F	Allison Huang	Hydrophobic Substances
C81	082-D20-71		PhysAstr	F	Arhana Aatresh	Over the Wing: investigating the effect of wind speed, wing angle, and propeller speed on a blown wing's lift force
C84	082-D40-G1		PhysAstr	F	Namrata Karra	Observing Refractive Index
C88	082-D60-81		PhysAstr	F	Rithika Ramesh	Energy Conversions from Renewable Sources
C89	082-D70-32	T	PhysAstr	F	Hannah Haberstroh & Rosaleen Chang & Jodi Liu	Variation of Magnet Strength
C98	082-E20-F2	T	ElecEng	F	Aanya Virmani & Arti Gnanasekar	Memory Vision: Using Artificial Intelligence to Improve Symptoms of Dementia in Alzheimer's Patients
B99	082-E21-E1		ElecEng	F	Swathi Badrinarayanan	A Renewable Energy Device Providing Rural Electrification to the Last Billion

Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
B95	082-E31-A1		ElecEng	F	Pramati Barath	Automatic volume adjuster based on ambient noise level
B94	082-E40-72	T	ElecEng	F	Mokshitaa Dhamotharan & Naomi Jung	The Benevolent Body Blanket: A Thermoelectric Blanket
B90	082-E51-21		ElecEng	F	Aisha Kazi	Smart Signal - The most effective traffic signal using IoT with a Raspberry Pi circuit
B89	082-E60-H1		ElecEng	F	Ishani Das	An Arduino-based Wearable Device for the Visually Impaired to Guide and Receive Immediate Help Using GPS and GSM Service
B83	082-E80-91		ElecEng	F	Dhwani Kharidia	Power Line Fire Hazard Detection System
B82	082-E81-62	T	ElecEng	F	Ria Deshpande & Lexxa D'Amico	Motion Activated Sensor and Servo to push Crosswalk Button and Eliminate Bacterial Spread
B79	082-E91-31		ElecEng	F	Anika Pandey	Designing an Environmentally Friendly and Efficient Supercapacitor/Battery with Nanoparticulate Graphene
B78	082-F10-B2	T	MechEng	F	Kaitlyn Liu & Neha Agrawal	Simply Stretching
B76	082-F20-72	T	MechEng	F	Tanisha Grover & Kimberly Maddox	So Many Houses, But Which One To Choose?
B73	082-F30-32	T	MechEng	F	Saee Pole & Kaitlyn Venator & Adreema Ahsan	How to save a life " CPR dummy remodeled"
B67	082-H10-D1		SoftEng	F	Aaleesha Doshi	The design of an algorithm to detect road quality through vibrations, user input, and connection with Google Maps
A70	082-H20-91		SoftEng	F	Sumaswara Chinthalapati	Predictive analytics of innovative scientific trends from patent datasets using supervised machine learning algorithm
A73	082-H30-42	T	SoftEng	F	Amiya Chokhawala & Carol Wininger	An Innovative Solution to Enhance Teenager Well-Being: A Mobile Application that Promotes Collaborative Problem-Solving
A82	082-H41-G1		SoftEng	F	Tasha Lera	Using Data Analysis to Build a Personalized Search Engine
A84	082-H50-D2	T	SoftEng	F	Kavinaya Rajesh & Kaitlyn Nguyen & Sahana Moogi	In A HeartBeat: Heart Disease Detecting Device and App
A92	082-H62-61		SoftEng	F	Aditi Jain	G.G.F(Green Grocery Footprint)
A93	082-H70-52	T	SoftEng	F	Hetal Kurani & Hemal Kurani	Smart Campus Security Shield: A Risk Based Real Time Crime Alert and Prevention System Using Student ID Card
A96	082-H80-21		SoftEng	F	Isha Jagadish	Identifying Polygenic Disease Risk Susceptibility Across Ethnic Super Populations
A98	082-H82-F1		SoftEng	F	Mridula Naikawadi	Facial Recognition Based Home Security
X97	082-H91-D1		SoftEng	F	Romina Jately	FitTreat
Y10	091-120-21		BehavSci	F	Shriya Anant	The Effect of Neem Extract on the Serotonin Receptors in Drosophila Melanogaster larvae
Y12	091-150-62	T	BehavSci	F	Stephanie Samame & Kaitlyn Butcher & Aleena Bosky	Is watching television more beneficial to one's short-term memory than exercising for ten minutes?
Y24	091-160-31		BehavSci	F	Tara Pande	Optimizing Sleep and Wellbeing in Sleep-Deprived Teenagers
Y25	091-220-B1		PlantSci	F	Avyuktha Mattupalli	Effects of Tyrosine on the Rates of Photosynthesis of Pondweed
Y27	091-240-31		PlantSci	F	Nithika Karthikeyan	The Differential Fixation of Dissolved CO2 by Different Algal Species
Y28	091-310-71		AnimalSci	F	Anushka Kesavan	What is the effect of the Unpaired 2 cytokine on tumorigenesis in Drosophila melanogaster?
Y30	091-330-F2	T	AnimalSci	F	Angela Gao & Ritika Rajamani	The Effect of Environmental and Chemical Conditions on the Biodegradation of Polyethylene by Galleria mellonella Larvae
Y40	091-340-C1		AnimalSci	F	Amanda Kay	The Effects of Pharmaceutical Pollution on Aquatic Environments
Y42	091-410-G1		BiocheMic	F	Anika Nagavara	The Effect of Green Tea on Drosophila Haemocytes and Their Ensuing Ability to Fight Infections In Order To Cure Allergy

Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
Y43	091-411-E1		BiocheMic	F	Saivee Shelke	The effect of Triclosan on RyR1 expression and subsequent muscle contraction in Drosophila melanogaster.
Y44	091-420-C1		BiocheMic	F	Rachel Chen	The effect of time and temperature on the LDPE digesting properties of Acidovorax delafieldii
Y45	091-421-A1		BiocheMic	F	Rhea Rai	Effect of Potassium Nitrate on Growth of Escherichia Coli
Y55	091-441-21		BiocheMic	F	Jessica Wang	How can the Process of Bioluminescence be Altered to Generate More Light for Future Electric Services?
P59	091-450-H1		BiocheMic	F	Riya Ravuri	Urokinase as a potential cancer biomarker using C. Elegans
P58	091-451-F1		BiocheMic	F	Kavita Murthy	The Amount of Heat-resistant Escherichia coli Found in Organically and Conventionally Grown Spinacia oleracea
P55	091-470-91		BiocheMic	F	Aishwarya Manoj	The effects of propylene glycol on heart rate in Daphnia Magna
P53	091-480-51		BiocheMic	F	Myung Suh Choi	Comparing the photoprotection capabilities of the phytochemical anthocyanin to oxybenzone in commercial sunscreen
P52	091-481-31		BiocheMic	F	Mrudula Chodavarapu	What is the effect of aloe vera gel and carrot seed oil on the chlorophyll concentration of Eudorina californica algae?
P51	091-490-11		BiocheMic	F	Sachita Kashyap	Comparing the Efficiency of Fermented Milk and Probiotic Capsules in Repopulating the Microbiome Post Antibiotic Regimen
P43	091-550-91		BioInfo	F	Annika Viswesh	Classifying different types of cancer by applying machine learning techniques on epigenetic information
P38	091-630-91		MedHeaSci	F	Jocelyn Swift	The Effects of Natural and Artificial Sweeteners on Gut Bacteria as Modeled by E. coli
P36	091-660-D2	T	MedHeaSci	F	Diana Kohr & Angela Jiao & Aarushi Mehrotra	The effect of different inflammatory pathway inhibitors on the symptoms of Alzheimer's in C. elegans
P29	091-740-E1		BiomedEng	F	Shweta Arun	WristWatch: A Portable Raspberry Pi Device to Identify Harmful Wrist Posture
P28	092-A10-31		Chemistry	F	Sivagami Kenyan	The absorption of carbon dioxide in a bubble column absorber when the pH of calcium hydroxide solution is changed
P26	092-B10-C1		CheEnvEng	F	Samika Swamy	CogniGuard: A novel, herb-based treatment for protection against neurotoxicity from lead pollution.
P21	092-B40-H1		CheEnvEng	F	Shailee Nanavati	Modeling Quantum Levitation with Superconductors
P15	092-C30-D1		EarEnvSci	F	Danya Balagopal	The Effect of Bio-coagulants on the Adsorption of Waste Oil and the Reduction of Turbidity from Oil-Produced Waters
P13	092-C50-42	T	EarEnvSci	F	Jennifer Song & Serena Pei	Effect of Mealworm's (larvae of Tenebrio molitor) Decomposition of Polystyrene on Palaemonetes Paludosus
P10	092-D11-B1		PhysAstr	F	Nethra Srinivasan	Biomechanics: The Effect of Flexibility of Quadriceps and Angle of Knee on Force Applied on the Patella During Squats
N12	092-D70-61		PhysAstr	F	Pujita Tangirala	Comparing Correlation between Color and Metallicity in Cluster vs Non-Cluster Galaxies
N13	092-D80-21		PhysAstr	F	Anousha Athreya	Investigating the Effect of Low-Cost Graphene on Different Kinds of Solar Cells
N14	092-E10-51		ElecEng	F	Leelavathi Srinivas	Can the Stirling Engine Outperform Pyroelectric Conversion in Converting Heat to Electricity for Laptops?
N15	092-E20-H2	T	ElecEng	F	Aleeza Huraira & Suniska Patel	Are "green" detergents less toxic than conventional detergents?
N32	092-F30-52	T	MechEng	F	Sindhu Saggeri & Neha Mandava & Aarushi Shah	HydroFin: A three in one aquarium maintenance system

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
N34	092-F40-21		MechEng	F	Akshita Ponnuru	Sustainable Affordable Housing for Homeless
N35	092-F50-E2	T	MechEng	F	Tavleen Kaur & Impana Chimmalagi	ThumbsUp: Designing an Optimal Cryo-Brace to Treat Texting Thumb
N42	092-F80-22	T	MechEng	F	Reina Pradhan & Ira Narang & Aashvi Rastogi	Device which uses proximity sensors and deep learning to sense obstacles and potential dangers for the visually impaired
N47	092-H12-B1		SoftEng	F	Sneha Revanur	A Novel Approach to Analyzing Neglected Tropical Diseases Using Deep Learning and Graph Networks
N49	092-H21-91		SoftEng	F	Divya Sundar	Home-based Infant Milestone Tracking Using Image Analysis
N55	092-H40-31		SoftEng	F	Alice Feng	DeepGuide: A Deep Learning Based Mobile System to Assist Visually Impaired Pedestrians To Cross Intersections
N57	092-H42-G1		SoftEng	F	Sheryl Hsu	Using Artificial Intelligence to Record Locations of Essential Items for Dementia Patients
M58	092-H52-C1		SoftEng	F	Iris Zhou	Sunlight Tracker: How Much Sunlight Do You Get?
M55	092-H62-81		SoftEng	F	Shreyaa Karan	Leveraging Machine Learning and Image Analysis to Detect Melanoma (Skin Cancer) and Develop a Prognosis For It
M51	092-H80-41		SoftEng	F	Veda Kamaraju	Mobile Urban Sensing System: A Novel, Smart City Approach to Detect, Analyze, and Prevent Air Pollutants
M48	092-H91-F1		SoftEng	F	Sanjana Jilla	ML/DNA Driven Disease Susceptibility Analyzer
M46	093-410-11		BiocheMic	F	Cara Burgess	Observing the Effects of Cancer Metastasis Promoting Gene, CD151, in E. coli
M45	093-420-E1		BiocheMic	F	Sinaya Joshi	Fluorescein or Green Fluorescent Protein: Is it possible to create a sensor for dehydration in athletes?
M44	101-110-91		BehavSci	F	Shreya Soma	What is the effect of background color on how long it takes for a bee to learn where food is stored
M43	101-120-42	T	BehavSci	F	Kristine McLaughlin & Avani Karvat	What is the effect of music on the state dependent learning phenomenon in high school students?
M39	101-130-H2	T	BehavSci	F	Consuelo Romero Martinez & Tuoyang Ye	Analyzing the Biological Signs of Presentation Anxiety
M37	101-140-E1		BehavSci	F	Anshika Agarwal	In Their Shoes: Using Virtual Reality to Foster Empathy
M36	101-160-61		BehavSci	F	Neeta Chethan	The Effects of Distracted Interferences on Reaction Time
M34	101-220-E1		PlantSci	F	Beatrice Mihalache	Effects of Polyethylene Microbeads on Lactuca sativa var. Longifolia
M33	101-230-A1		PlantSci	F	Charlotte Lara	Allelopathic Effects of California Native Trees on a California Native Grass, Festuca Californica
M32	101-240-61		PlantSci	F	Anya Chatterjee	Levels of Dissolved Oxygen Produced by Nonvascular Plants in Freshwater Ponds
M31	101-250-21		PlantSci	F	Gwyneth Wong	Role of photodegradation of water retaining polymer when applied to pea plants
M29	101-310-A1		AnimalSci	F	Aaina Dogra	Effects of Water pH on the Hippocampal Lobe Volume and Learning Ability of Flightless Drosophila melanogaster
M28	101-320-61		AnimalSci	F	Jordan Naddaf	Increased Airborne Zinc Concentration and the Onset of Anosmia using Drosophila melanogaster
M22	101-360-62	T	AnimalSci	F	Atti Liu & Hanna Liu & Angela Wang	The Effects of Lowering pH on the Bioluminescence of Dinoflagellates
M20	101-410-12	T	BiocheMic	F	Megha Yengoti & Ramya Chamkeri	Effect of Mixture with Varying Ratios of Manuka Honey to Silver Nanoparticles on Biofilm Formation of Micrococcus Luteus
M18	101-430-B1		BiocheMic	F	Mya Hammond	The 5 second rule: is it real?
M12	101-511-91		BioInfo	F	Nikhita Arun	Computer Model that Identifies Relationship between Urine

Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
						Biomarkers and Subclinical Cardiovascular Disease
M11	101-520-71		BioInfo	F	Julia Biswas	Automated Detection of Suicidal Ideation in Tweets Using A Machine Learning Algorithm
L10	101-530-31		BioInfo	F	Arohee Bhoja	Identification of Acute Lymphoblastic Leukemia in Blood Samples Using Deep Learning
L11	101-540-G1		BioInfo	F	Riya Chatterjee	Novel Early Detection of Neurodegenerative diseases using Cortical Gyrification and Deep Learning Methods
L13	101-560-81		BioInfo	F	Shachi Prasad	Machine learning approach to cancer discovery and classification based on gene expression and gene marker identification
L15	101-610-31		MedHeaSci	F	Kelly Ferguson	Testing for Abnormal Heart Rate as a Side Effect of Passiflora incarnata in Wingless Drosophila melanogaster
L16	101-620-G1		MedHeaSci	F	Nadia Miller	The Effect of Manuka Honey as a Neuroprotective Agent Against Neurodegneration Caused by Aspartame in C. elegans
L17	101-621-E1		MedHeaSci	F	Anya Raju	Utilizing Olive Oil For Increasing Absorption of Turmeric for the Treatment of Cancer
L26	101-651-12	T	MedHeaSci	F	Vivian Trinh & Becky Duong	The Effect of Varying Concentrations of Oat and Barley Extract on Cholesterol Reduction
L28	101-660-H1		MedHeaSci	F	Atreyi Mukherjee	The effect of electronic cigarette liquid on the viability of Lumbriculus variegatus
L35	101-730-41		BiomedEng	F	Safaa Mouline	Application that Enhances Comprehension of Real Time Speech for People with Auditory Processing Disorder
L36	101-740-H1		BiomedEng	F	Seung Ah Choi	Increasing the Efficiency of the Topical Medication Triamcinolone Acetonide in the Oral Cavity
L38	102-A10-61		Chemistry	F	Kate Jackson	The Effect of Limestone in Removing Excess Fluoride from Water
L39	102-A20-12	T	Chemistry	F	Ivie Xue & Patricia Huang	The Impact of Alternative Fibrous Materials in Paper Construction and its Impact on Paper Strength and Writing Quality
L42	102-A30-F1		Chemistry	F	Anokhi Shah	Therapeutic Effect of Curcumin as a Metal Chelator against Alzheimer's Disease
L48	102-B10-F1		CheEnvEng	F	Nicole Krockenberger	Creating a Renewable and Biodegradable Bioplastic from Bambusa multiplex
L49	102-B11-D1		CheEnvEng	F	Sriya Sridhar	Water Footprint!
L50	102-B20-B1		CheEnvEng	F	Dylan Chin	Ability of Ferrofluids to Remove Organophosphates from Ocean Water
L51	102-B21-82	T	CheEnvEng	F	Anne Pham & Kaylie Visitacion	Biodegradable Polystyrene made from Leucoplasts in Solanum Tuberosum in Littoral Atmospheres
L53	102-B50-G1		CheEnvEng	F	Roya Ahmadi	A Data Analysis Approach to Wildfire Prediction
L54	102-B70-81		CheEnvEng	F	Manjari Talasila	Microwave assisted alkaline pretreatment to optimize lignocellulose conversion to glucose from corn waste
K57	102-C20-31		EarEnvSci	F	Laasya Chukka	Predictive analytics to estimate the propagation of Sargassum and pinpoint critical areas of growth
K54	102-C40-C1		EarEnvSci	F	Elizabeth Szeto	The Effectiveness of Raw and Treated Cotton and Kapok Fibers for Oil Spill Cleanup
K53	102-C50-81		EarEnvSci	F	Tharika Thambidurai	Reducing Global Air Pollution Using A Self-Cleaning Photocatalyst
K52	102-C60-41		EarEnvSci	F	Sahana Rajmohan	The Effect of Laundering Polyester Fabric on the Dispersion of Microfibers in Washing Machine Wastewater
K51	102-C90-91		EarEnvSci	F	Colleen McKinley	Can the Bokashi Method Enhance Vermicomposting?
K50	102-D10-G1		PhysAstr	F	Maria Korolik	The Role of Fluid Elasticity on Droplet Rebound on Various Surfaces

Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
K49	102-D20-C1		PhysAstr	F	Francine Estranero	The Effect Of Dark Matter Density On Simulated Galactic Rotation Curves
K44	102-E21-21		ElecEng	F	Srushti Adesara	Leaking Sensor Mechanism
K43	102-E40-D1		ElecEng	F	Supriya Lall	A novel approach to Gunshot Detection using Machine Learning
K42	102-E50-91		ElecEng	F	Pratibha Ramasamy	Circuit Smart Breaker
K38	102-E70-11		ElecEng	F	Emily Park	Wave Breaker System to Stop Tsunami Waves
K36	102-E90-A1		ElecEng	F	Sakshi Kumar	An Alternative to the Pitot Tube For Measuring Airspeed
K31	102-F30-91		MechEng	F	Caitlin Gorin	A Multi-Faceted Material Strength Testing Machine for 3D Printed Plastics
K30	102-F40-51		MechEng	F	Sneha Raj	Modular Robotic Configuration Inspired by Origami Engineering
K29	102-F50-H2	T	MechEng	F	Harshini Manian & Mugdha Joshi	The Conservation of Water By Way of the Gaugeometer
K23	102-H11-G1		SoftEng	F	Nishita Belur	An Innovative APProach to Augment Mobile Hospital Care: Prescreening and Virtually Connecting Rural Patients to Doctors
K20	102-H14-A1		SoftEng	F	Jyoti Rani	Autonomous Robotic Medicine Sorter, A.R.M.S.
J14	102-H42-21		SoftEng	F	Nithila Poongovan	A Simulation Study of an Auction Based Ride-Sharing Platform
J21	102-H60-F1		SoftEng	F	Anjali Singh	Creating Adversarial Examples for Face Recognition Algorithms to Secure Privacy of Online Photographs
J22	102-H61-C2	T	SoftEng	F	Janya Budaraju & Grace Kuo	Using Predictive Analytics to More Effectively Determine the Impact of Earthquakes on Mortality & Infrastructure
J28	102-H70-A2	T	SoftEng	F	Fiona Luo & Claire Wen	Soil Contamination Detection and Identification through Soil Spectroscopy using Deep Convolutional Neural Networks
J32	102-H72-71		SoftEng	F	Shreya Manivel	Breaking News Aggregator built on highly resilient and scalable MongoDB datastore in public cloud
J33	102-H73-51		SoftEng	F	Arushi Patel	Use of AI Base Image Recognition for Delta Smelt Substrate Mapping
J34	102-H80-71		SoftEng	F	Iman Malik	Diagnosing Diseases by Creating a Machine Learning Based Nail Analysis Algorithm
J35	102-H81-51		SoftEng	F	Manasa Pooni	Building assistive technologies for the deaf using a deep learning shared representation multimodel across domains
J36	102-H82-31		SoftEng	F	anissa aribi	Cost Effective Slow Motion for Medical Diagnostics
J46	103-410-41		BiocheMic	F	Anushka Sanyal	Exploring the role of G-protein Signaling Pathway interactions with nAChR alpha-7 in D. melanogaster Alzheimer's models
J47	103-420-H1		BiocheMic	F	Ruchika Dixit	Comparing the Effects of Renilla to Firefly Luciferase When Genetically Inserted Into the Drosophila Melanogaster Genome
J48	103-430-D1		BiocheMic	F	Avantika Gokulnatha	Memory Retention of Learned Behavioral Traits through Metamorphosis and Subsequent Generations in Vanessa Cardui
J50	103-520-91		BioInfo	F	Sidra Xu	Determination of Genetic Factors Involved in Hypoplastic Left Heart Syndrome Using RNA-Seq
J53	103-610-51		MedHeaSci	F	Chetana Ganga	The Effect of the Human MeCP2 Gene on Drosophila Behavior and A Method of Inhibiting p53 as a Model for Rett Syndrome
J55	103-630-E1		MedHeaSci	F	Khushi Parikh	The Effect of Virtual Reality Application on the Pain Perception of Patients Undergoing Allergy Testing and Treatment
J56	103-640-A1		MedHeaSci	F	Alekhya Vadlakonda	The Effect of Resolvin D1 on Heart Rate and ROS Production in Daphnia magna: Implications for an Anti-Inflammatory Agent
J57	104-C10-91		EarEnvSci	F	Eshani Jha	The Effect of Mineral Doping on Enhancement of Contaminant Uptake by Biochar

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
J58	104-D10-11		PhysAstr	F	Betsy Tian	The Location of Fe II Emission in AGNs and the Response of Fe II Emission to Changes in the Continuum
H58	104-E10-A1		ElecEng	F	Anika Fuloria	Vibrotactile Rendering of Virtual Sculptures Using Wave Voxel Synthesis
H57	104-H10-22	T	SoftEng	F	Avishi Agastwar & Arushi Agastwar	Toward Smart Hospitals: Deep Learning-Based Monitoring and Health Tracking of Mobility in Intensive Care Unit
H54	111-120-62	T	BehavSci	F	Pratya Poosala & Purnima Venkat	Testing whether the use of simulated laboratory experiments correlates to increased understanding of concepts
H52	111-130-31		BehavSci	F	Adelaide Bao	The Effects of Academic Stress on Salivary Cortisol in Subpopulations of Students
H51	111-140-G1		BehavSci	F	Hien Bui	The Effects of Multitasking on Reading Comprehension
H50	111-210-31		PlantSci	F	Jaidyn Moodley	Effects of Bacillus Subtilis NCIB 3610, Rhizobium leguminosarum, and Anabaena sp. on Plant Growth
H44	111-260-H1		PlantSci	F	Erica Barandica	What is the Ideal Concentration of Biochar in Soil for Optimal Carbon Sequestration?
H39	111-280-82	T	PlantSci	F	Sally Ha & Uyen-Vy Le & Tracy Tran	Leaf Me Alone: Inhibition of Weed Growth Using Allelopathic Potential of Aromatic Plants
H34	111-330-32	T	AnimalSci	F	Kim Tran & Gillian Tran & Michelle Pham	Down to Earth: Evolutionary Tradeoffs Between Base Speed and Toxin Resistance in Terrestrial Decomposers
H32	111-410-32	T	BiocheMic	F	Elena Mujica & Kylie Akiyama	Reducing Brevetoxin Production in Karenia brevis by Inhibition of Non-Photochemical Quenching (NPQ)
H30	111-411-21		BiocheMic	F	Helene Luu	Effects of Microtubules and Actin on Euglena Photosynthesis
H29	111-412-G2	T	BiocheMic	F	Preethi Edara & Christine Tran	Effect of Herbal Remedies on Bacteria
H26	111-421-F1		BiocheMic	F	Tina Nguyen	What is bacterial language that is used as communication between bacteria?
H23	111-422-D1		BiocheMic	F	Emily Row	Natural Versus Synthetic Antibiotics
H21	111-431-B1		BiocheMic	F	Nikki Nguyen	Investigating the effect of honey on the formation of the biofilms of Escherichia coli
H20	111-432-91		BiocheMic	F	Shloka Janapaty	A Novel, Fast, Low-Cost Approach to Achieve Near 100% LDPE Degradation: Bioremedial Landfill Implementation
H16	111-450-51		BiocheMic	F	Supriya Mula	The Effects of TNF-beta on Harmful A1 Astrocyte Differentiation in Glial Scars
H15	111-451-31		BiocheMic	F	Christina Tran	The role of nutrients on the growth of Escherichia coli, Lactobacillus, Peptostreptococcus, and Candida Albicans
H11	111-461-G1		BiocheMic	F	MI Le	The effects of salicylic acid, tannins, and terpinen-4-ol on Staphylococcus epidermidis
H10	111-470-E1		BiocheMic	F	Shreya Garg	Determining the Roles of CuSB, Flagellin, and AcrAB-TolC in Bacterial Responses to Nonlethal Concentrations of AgNPs
G10	111-471-C1		BiocheMic	F	Adriana Marcelino	Boosted Bacteria: How do Bacteria Respond to Energy Stimulants?
G12	111-481-81		BiocheMic	F	Arthi Vaidyanathan	Testing the Effects of Iron Supplements on the Production of Siderophores in Antibiotic Resistant Bacteria
G13	111-490-52	T	BiocheMic	F	Joyce Huang & Nikhita Sujan	The Effect of Antibiotics on Protein Properties of Calf Serum
G20	111-550-E1		BioInfo	F	Riya Deokar	Diagnosis & Prognosis for Multiple Stages of Trichotillomania Using Machine Learning with Kinetic Treatment Feasibility
G28	111-610-51		MedHeaSci	F	Ariana Yamouti	Testing the Antibiofilm Activity of Essential Oil on Biofilm Forming Bacteria
G29	111-611-31		MedHeaSci	F	Manasvi Gummadi	Efficacy of Different Autophagy Inhibitors on Glioblastoma Treated with Temozolomide
G30	111-620-11		MedHeaSci	F	Eleni Bauman	Examining the Effect of Cholesterol Starvation on Amyloid-Beta

Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
						Toxicity in Transgenic Caenorhabditis elegans.
G31	111-621-G1		MedHeaSci	F	Siyun Zuo	Shaping What We See: Mechanical Properties of the Cornea
G32	111-630-E1		MedHeaSci	F	Emerson Martin	Evaluating the Protective Effects of Cyanocobalamin and Methylcobalamin when C.elegans are exposed to Bisphenol-A
G34	111-640-A1		MedHeaSci	F	Sierra Howard	Implications of Inhibiting the Wnt Signaling Pathway in Tolerogenic Dendritic Cells using the Novel Antibody Omp-18R5
G35	111-650-61		MedHeaSci	F	Shrena Punj	Microbe Project: Mapping Human Symptoms to Gastrointestinal Microbial Deficiencies Using Computer Software
G47	111-750-E2	T	BiomedEng	F	Celina Ashby & Shresthi Viswanath	Evaluating the Effect of Ultraviolet Radiation on the DNA Repair Systems of UV-sensitive Saccharomyces cerevisiae Cells
G50	112-A20-32	T	Chemistry	F	Kreena Parikh & Keerthi Panguluri	The effects of heat with different concentrations of sodium alginate
G53	112-A50-91		Chemistry	F	Sulphine Odio	Mass of Different Foods vs Caloric Content and Energy Provision
G57	112-B20-D1		CheEnvEng	F	Ashley Dang	Removing Heavy Metals and Pathogens from Water Using Biosand Filters Containing Plant Biomass
G59	112-B30-91		CheEnvEng	F	Katherine Nasif	Development of an Electro-activated Dynamic-Resisting Polyaniline Sensor for use in Electronics Prototyping Applications
F51	112-C10-82	T	EarEnvSci	F	Charu Vijay & Neha Mannem	Bioremediation by Bacteria and Microalgae on the Lasting Impact of Ocean and Lake Eutrophication
F49	112-C30-11		EarEnvSci	F	Kami Richardson	Coral Collapse: Investigating and Reducing Environmental Stress Factors in LPS Corals with Delayed Release Substrate
F48	112-C40-E1		EarEnvSci	F	Nikitha Kalahasti	The effect of plant recolonisation on soil properties post fire exposure during drought stress
F47	112-C50-A1		EarEnvSci	F	Shannon Miranda	An Environmentally Friendly Wetland Nitrate Filtration Method with Reduced Global Warming Gases
F46	112-C60-61		EarEnvSci	F	Vanessa Fuentes	Worms, Decomposition, and Soil
F45	112-C80-F1		EarEnvSci	F	Karthyayani Sajeev	What is the effect of various nitrate concentrations on freshwater hydrophyte development?
F39	112-E11-81		ElecEng	F	Aryia Dattamajumdar	An early warning AI-powered portable system to reduce workload and inspect environmental damage after natural disasters
F27	112-F10-21		MechEng	F	Isabel Sperandio	Harnessing the Power of the Ocean: Designing an Efficient and Portable Wave Energy Converter Prototype
F21	112-F30-A2	T	MechEng	F	Uyennhi Nguyen & Karyn Luu & Elena Coll	Mind Message: Using a EEG Headset To Send A Text Message To Call For Help
F19	112-F40-62	T	MechEng	F	Patricia Cornejo & Tian Wells	ConcrHEAT
F17	112-F50-22	T	MechEng	F	Thien-Kim Dang & Angelique Zoile	Prosthesis
F15	112-F60-G1		MechEng	F	Zara Shariff	Easily Acquired Sanitation Bin via a Wireless Arduino-Powered Robot with Mobile Connectivity and Audible Receiver
F14	112-F70-B2	T	MechEng	F	Rithu Paramesh & Anika Adulla	ARCO-Bot: A Novel Approach to Automated Ocean Trash Cleanup Using Machine Learning
E12	112-H10-31		SoftEng	F	Ada Peschanskiy	Reducing Radio Frequency Exposure to Mobile Phone Users by Disabling WiFi, Mobile Data and Bluetooth During Phone Calls
E13	112-H11-11		SoftEng	F	Claire Lee	Review Analyzing System to Help Customers Choose Menu Items

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
						from a Restaurant using NLP and Machine Learning
E14	112-H12-G1		SoftEng	F	Samhita Vasu	An Image Recognition System Inspired by the Human Visual Pathway to Recognize Images with Fewer Examples
E16	112-H20-G1		SoftEng	F	Margaret Radke	Determining the Most Effective and Cost Efficient Combinations for a Hybrid Renewable Energy System
E18	112-H22-C1		SoftEng	F	Anusha Ghosh	Detection and Translation of American Sign Language through Deep Learning
E31	112-H41-61		SoftEng	F	Adishree Ghatare	Identifying a Correlation Between Countries' Happiness Indices and the Language of Their Research Using Deep Learning
E36	112-H53-F1		SoftEng	F	Renee Su	Land Cover Change Detection From Semantic Segmentation Using Convolutional Neural Networks
E48	112-H81-62	T	SoftEng	F	Nivrithi Krishnan & Ashwini Suriyaprakash	An AI-Powered Voicebot to Improve Post-Operative Recovery
E50	112-H82-51		SoftEng	F	Harleen Siddhu	Keeping It Private: Self-Made Future Proof Encryption Scheme
E51	112-H90-51		SoftEng	F	Audrey Cui	From Pixels to Paragraph: A Deep Artwork Passage Generator
E53	112-H92-H2	T	SoftEng	F	Isabella Borkovic & Natalie Huang	Creating an AI Trash Sorter Through Supervised Machine Learning
E55	113-110-C2	T	BehavSci	F	Kathleen Spears & Stephanie Chen	Mind Control Motion Pareidolia
E58	113-410-61		BiocheMic	F	Allison Jia	Modeling Neurodegeneration in vitro: A Dynamic Study of Tau in a Microfluidic Chamber System Via Quantum Dot Labeling
D59	113-420-21		BiocheMic	F	Lauren Fu	Characterization of New Variants of ?-Glucosidase B Protein Using Kinetic and Thermal Analysis
D58	113-430-F1		BiocheMic	F	Anika Tiwari	Understanding the Mechanism of Interaction of Bacteriophage phi KZ with CRISPR-Cas Immune Systems
D57	113-431-D1		BiocheMic	F	Chaelee Park	Role of morphine in the microglial TLR4-mediated inflammatory response to ischemia
D56	113-440-B1		BiocheMic	F	Van-Khanh Tran	The Effect of Glia on Neural Excitability
D55	113-460-31		BiocheMic	F	Anushka Goel	Finding a Connection Between the Immune Response and Overproduction of Amyloid beta in Alzheimer's Disease
D54	113-480-C1		BiocheMic	F	Shreya Sinha	Analyzing the Role of Chromothripsis in Cancer via Telomere Modification
D53	113-511-D1		BioInfo	F	Divya Nair	Analyzing the Effect of Spaceflight on Mus musculus Retinas through Transcriptomic Analysis
D52	113-512-B1		BioInfo	F	Christina Wong	Visualizing Tumor Heterogeneity and Predicting Metastasis with Machine Learning
D51	113-520-B1		BioInfo	F	Cynthia Chen	Decoding Neural Networks: Novel Computational Methods to Discover Anti-Tumor B-Cell Receptor Binding Motifs
D49	113-530-71		BioInfo	F	Aarzu Gupta	Identification and Analysis of Sex Specific Gene Expression Signatures in Alzheimer's Disease
D48	113-531-51		BioInfo	F	Anuva Banwasi	Biomarker identification in the adipogenic pathway of tumor cells - a metabolomics approach
D47	113-540-31		BioInfo	F	Eileen Li	Head and Neck Cancer Prognosis Using Machine Learning Analysis of Pathology Images
D42	113-561-A1		BioInfo	F	Alice Yeh	Mining classification rules for HIV-1 protease cleavage sites using simplified swarm optimization
D38	113-571-61		BioInfo	F	Shruti Sridhar	Investigating Genetic Mechanisms of the Tumor Endothelium Using scRNA-Seq Analytics & Developmental Trajectory Mapping

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
D36	113-581-21		BioInfo	F	Mallika Parulekar	A Fast, Unsupervised Learning Method to Identify Novel and Diverse Signals in High-Throughput Genetic Data
D35	113-590-H1		BioInfo	F	Amirtha Maria	Do varying concentrations of nitrogen lead to varying production of chlorophyll among different algal communities?
D33	113-610-71		MedHeaSci	F	Rashi Ranjan	Examining the Mdivi-1-Induced Fusion-Independent Mechanism of a-KG Inhibition in Lung Cancer Cells
D32	113-620-31		MedHeaSci	F	Triya Roy	The Effect of a High-Sugar Diet on Drosophila melanogaster
D31	113-640-C1		MedHeaSci	F	Sriya Jonnakuti	The Effect of Pulsed Focused Ultrasound Induced HSP20 on p-AKT Activation and Chronic Kidney Disease Progression
D30	113-650-81		MedHeaSci	F	Maya Nayak	Using Planaria as a Model Organism for Multiple Sclerosis - An Alternative Approach Using Anecdotal Cures
D29	113-660-41		MedHeaSci	F	Sangeeta Koilada	The effect of exogenous p53 from long-lived mammals on the longevity of human cells
D28	113-670-H1		MedHeaSci	F	Cordelia Yu	The Genome Stethoscope: Developing CRISPR for Live Diagnosis of Genome Abnormalities
D23	114-A20-61		Chemistry	F	Aditi Ghalsasi	A Novel Approach to Creating Ideal 3D-Printable Polymers via Functionalization of PCL
D22	114-A50-B1		Chemistry	F	Annie Ma	The effect of surface functionalization on the capacitance of graphene aerogels
D15	114-D10-31		PhysAstr	F	Nikita Salunke	Effect of Epitaxial Compression on Structural & Electrical Transport Properties of 3D Topological Dirac Semimetal Cd3As2
D12	114-D30-C1		PhysAstr	F	Emily Liu	Detecting Crystals in 3D Printed Metals Using Diffraction from X-ray Fluorescence Spectra
D10	114-G10-D1		Math	F	Maya Abiram	Can random walks on retinal connectome structure differentiate amacrine cell functionality in the retina
C13	121-210-51		PlantSci	F	Sawye Raygani	Silk Fibroin Seed Priming as a Method for Improving Drought Tolerance of Lactuca sativa
C14	121-220-11		PlantSci	F	Jayde Meng	Usage of Pseudomonas fluorescens to Enhance Iron Absorption of Lactuca sativa in Aquaponic Systems
C15	121-230-E1		PlantSci	F	Natsumi Hayashi	Ability of Philodendron bipinnatifidum to Absorb Excess Ozone and its Survivability in Hazardous Atmospheric Conditions
C16	121-240-A1		PlantSci	F	Lauren Heron	Plants Affected by the Moon?: The growth rate of Fast Plants with regard to planting periods during the lunar cycle
C18	121-310-E1		AnimalSci	F	Mariapaula Sunzeri	Effect of Burnt Cigarette Ashes and Butts on the Growth of Gymnodinium Sp.
C19	121-320-A1		AnimalSci	F	Joshita Kamalakannan	Using Aronia melanocarpa Extract to Analyze the Effects of Antioxidant-Rich Foods on the Health Span of Drosophila
C20	121-330-61		AnimalSci	F	Annika Mittelhauser	Can Air Pollution Damage Memory? Impact of Varying NO2 Exposure Times on Memory of Drosophila Melanogaster
C21	121-340-21		AnimalSci	F	Lubat Asadova	Testing the Effect of Heat Shock On the Behavior Response and on the Neuron Activity in C. Elegans
C26	121-411-32	T	BiocheMic	F	Ann Bui & Annalis Chao	The Effects of Ultraviolet Radiation on Bacteria Growth
C31	121-440-B1		BiocheMic	F	Elise Mayer	Effect on the Flow of Cytoplasm When the Slime mold Physarum

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
						polycephalum Makes More Difficult Decisions
C32	121-450-62	T	BiocheMic	F	Sreevidya Nibhanupudi & Yingjie Guo	The Effect of Lactation on Protein Concentration in Cow's Milk
C34	121-460-22	T	BiocheMic	F	Kyubin Lee & Vy Truong	The Effect of pH Levels and Temperature on the Growth Inhibition of Candida albicans
C38	121-480-C1		BiocheMic	F	Angelynn Nguyen	Determining the contribution of Escherichia Coli K-12 biofilms' mechanisms to antibiotic resistance
C42	121-490-72	T	BiocheMic	F	Lily Huynh & Thao Le	Comparing the Effects of Various Exposure Times of Radiation on Oxygen Production of Spirulina Major
C44	121-520-B1		BioInfo	F	Ana Cismaru	Parkinson's Disease Classification via Convolutional Neural Networks using DaTscans
C50	121-620-31		MedHeaSci	F	Anna Castello	Testing the Efficacy of Coconut Oil and its Components in Protection Against Amyloid Toxicity in Transgenic C. elegans
C53	121-640-B2	T	MedHeaSci	F	Angelica Harlan & Lucy Chang	The Effects of Melatonin on Apoptotic Rates of 6-OHDA Neurotoxin Induced SH-SY5Y Cells
C55	121-650-72	T	MedHeaSci	F	Nicole Pham & Zhanting Zhao	Effect of Phytoestrogens on Apoptosis rates of LNCaP Cells
C57	121-660-32	T	MedHeaSci	F	Vickie Hua & Deevya Raman	The Effect of Andrographis Paniculata Extract on MDA-MB-231 Breast Cancer Cells
C59	121-670-H1		MedHeaSci	F	Evelyn Rubinchik	The Effect of Blue Light Exposure on the Retinal Degeneration of Light and Dark Eyes
B59	121-710-G1		BiomedEng	F	Alice Martynova	An Affordable, AI-Enhanced Device to Diagnosis Strep Throat and Prevent Rheumatic Fever in Developing Countries
B58	121-720-B2	T	BiomedEng	F	Naomi Bennett & Aiushe Mishra	Machine Automated Replacement 3D Hand Aid (MARTHA 3.0)
B55	121-740-41		BiomedEng	F	Sandhini Agarwal	Tracking Parkinsonian Tremors: A Wearable Device Application Utilizing Smart Sensing for Real-Time Monitoring & Analysis
B52	122-A10-A1		Chemistry	F	Lily Beck	Synthesizing Active Compounds of Zingiber Officinale and their Effectiveness on Eradicating Pseudomonas fluorescens
B51	122-A20-61		Chemistry	F	Teagan Toomre	Synthesizing Derivatives of Coumarin to Downregulate Collagen III Expression in Cardiac Fibroblasts
B50	122-A30-21		Chemistry	F	Romella Sagatelian	Synthesis of Pyrazolopyridine Derivatives as Potential NADPH Oxidase 5 (NOX5) Inhibitors
B45	122-B20-E2	T	CheEnvEng	F	Anjali Sinha & Samantha Yang	Fighting Flames: Heat-Activated Dispenser for Fire Retardant
B36	122-C10-B1		EarEnvSci	F	Visala Tallavarjula	Water Use Optimization for Irrigation in Desert Sand Using Percolation Control Layer
B35	122-C20-71		EarEnvSci	F	Sophia Barwegen	The Effect of Light Pollution on Sky Brightness and the Calvin Cycle of Wildflowers in Yosemite National Park
B34	122-C30-31		EarEnvSci	F	Shivani Deglurkar	Using Mathematical Models to Find the Hazard Factor of Gaseous Pollutants
B32	122-D20-G1		PhysAstr	F	Ananya Venkatraman	Near-Earth Asteroid 1994 LX: Modeling Position and Velocity Vectors in order to Calculate Osculating Orbital Element
B31	122-D30-B2	T	PhysAstr	F	Nidhi Panchal & Pernelle Chan & Julie Park	The Effects of Gas Density and Temperature On Sound Intensity
B27	122-D50-32	T	PhysAstr	F	Anhiti Dharmapuri & Katherine Mekechuk	Space Relation: The Relationship Between the Concentration of Stars and Exoplanets in Corresponding Locations
B18	122-F11-12	T	MechEng	F	Milagros (Millie) Sotelo & Jennifer Chacon-Duran & Bianca Poblano	The Effects of Hair Fibers in Clay Brick Strength
A17	122-H10-51		SoftEng	F	Karla Puentes	College Chatbot
A22	123-410-81		BiocheMic	F	Sophia Hwang	Using THP-1 Dual Cells to Create an Alternative Endotoxin and

Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
						Pyrogen Detection Method Through Luciferase Expression
A28	123-450-91		BiocheMic	F	Nikhita Gopisetty	Effects of Sox9 on Beta Cell Function
A30	123-510-H1		BioInfo	F	Katherine Tian	Interpretable Deep Learning to Uncover The Sequence Determinants of Cell-Type-Specific TF Binding
A32	123-530-91		BioInfo	F	Katherine Zhang	Multiple Disease Prediction with Machine Learning on Large Microbiome Metagenomic Datasets
A35	123-560-D2	T	BioInfo	F	Sonia Sharapova & Saloni Shah	Immune Cell Profiling and Clustering in Adult Melanoma Cancer
A37	123-610-91		MedHeaSci	F	Ruhi Sayana	Precision Care for Cancer: Discovery of Novel Therapeutics for High-Risk ALL via Epigenetic and Computational Profiling
A38	123-620-51		MedHeaSci	F	Aishwarya Atmakuri	Effect of vitamin D3 on ER stress in multiple myeloma and cervical cancer to augment chemotherapy
A39	124-A10-C1		Chemistry	F	Ananya Karthik	Ultrasound-activated Nanoparticles for Targeted Drug Delivery to the Brain
X14	124-F30-F1		MechEng	F	Ishani Narwankar	Engineering an Unmanned Autonomous Vehicle for Use in Search and Rescue Missions Post Natural Disasters
X10	124-H30-G1		SoftEng	F	Jocelin Su	Computionally Efficient Measures of Neuron Importance in Deep Neural Networks
M93	062-H30-H2	T	SoftEng	F/M	Micah Nassi & Anna Suvorova	Sound Adventure: An audio and touch-based game for people with limited vision
L80	071-750-52	T	BiomedEng	F/M	Aasees Sandhu & Nadine Paula Ngo	The Smart Socket?
J71	072-C50-H2	T	EarEnvSci	F/M	Nikhil Ramkrishnan & Marisa Malto & Sanjay Selvakumar	The Wildfire Drone and Fire Detection System
H94	072-E20-D2	T	ElecEng	F/M	Severin Spagnola & Allison Nguyen	The WEB (Wheeled Electric Backpack)
E67	081-320-H2	T	AnimalSci	F/M	Sophia Shan & Aniket Singh	A Crabby Situation: How Alcohol Impacts the Behavior of Red Rock Crabs
X99	082-H90-E2	T	SoftEng	F/M	Nidhi Mathihalli & Nikhil Mathihalli	Helping the Blind count Money using Machine Learning
P45	091-540-C2	T	BioInfo	F/M	Aneesh Bhat & Anoop Bhat & Amulya Bhattaram	Diagnosis of Nystagmus Using Deep Learning
P34	091-670-92	T	MedHeaSci	F/M	Nathan Chiu & Swasti Jain & Joe Lin	The Design and Construction of a patch with an application for people that alerts the user when they are slouching
P32	091-680-52	T	MedHeaSci	F/M	Luke Zhao & Yajat Ambati & Anindya Narayanan	Measuring the Therapeutic Supplementation of Ubidecarenone against SOD-1 Mediated Paralysis in ALS C. elegans
N18	092-E40-92	T	ElecEng	F/M	June Kim & Chris Lee	The Design and Construction of a Wireless Body Heat Based Charging Phone Case for Phones with QI Technology
N20	092-E50-52	T	ElecEng	F/M	Tiffany Tran & Scott Dang	A Bot That Cleans Up Your Act
N22	092-E60-12	T	ElecEng	F/M	Srikar Nimmagadda & Belinda Chen & Bennie Chang	The design and construction of a system to automatically transcribe music for musicians to create sheet music instantly
N27	092-E80-A2	T	ElecEng	F/M	Lorenzo Beronilla & Princess Bergado & Ryan Liu	Creating an Inexpensive Marine Dropcam to Aid in Citizen Science
N58	092-H50-F2	T	SoftEng	F/M	Mukund Krishnakumar & Rucha Deo	Implementing Deep Learning and Convolutional Neural Networks in Python to Detect Malign Moles as Symptoms of Skin Cancer
M54	092-H70-72	T	SoftEng	F/M	Xinglin Li & Yashwant Rajana & Shreya Agrawal	The design and construction of an app for musicians that flips pages and analyzes notes to help with practice
M14	101-460-F2	T	BiocheMic	F/M	Vincent Chen & Madison Doan	Bacterial Infestation
L20	101-641-52	T	MedHeaSci	F/M	Kaushal Raghu & Aditi Poddar	Investigating the Effects of Various Interactions with Caffeine on the Heart Rate of Daphnia Magna
L30	101-680-82	T	MedHeaSci	F/M	Krishna Ajjarapu & Amodh Anand & Harini Pootheri	Measuring the effects of the ratio of berberine to water on the permeation of skin.
L46	102-A50-62	T	Chemistry	F/M	Michelle Lu & Omar Sancen & Hong-An Tran	The Optimal Pill Shape for Rapid Dissolving Under Various Conditions

Generated on 2019/03/08 11:10:43

Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
L55	102-B80-32	T	CheEnvEng	F/M	Katrina Bui & Lakshmi Eleswarapu & jasper Nguyen	PDMS and Hexane: The Answer to Oil Spills
K59	102-C11-42	T	EarEnvSci	F/M	Kyler Thai & Trisha Samineni	The Use of UV Rays to Kill Bacteria in Water
K56	102-C30-F2	T	EarEnvSci	F/M	Loriann Ho & Oliver Sanchez Castillo	The Impact of Chemicals and pH on Aquatic Life
K35	102-F10-G2	T	MechEng	F/M	Kelly Vo & Michael Nguyen	Self-Driving Robot using Machine Learning
K14	102-H30-92	T	SoftEng	F/M	Michael Zhao & Heidi Lin	An Intelligent Parking System for Driverless Vehicles
J12	102-H41-32	T	SoftEng	F/M	Jadelynn Dao & Advit Deepak	Using Reinforcement Learning in Detection Systems to Modernize Traffic Control Algorithms
H37	111-310-B2	T	AnimalSci	F/M	Nicholas Chiang & Austin Chiang & Natalie Hong	What is the effect of a coral reef biome on the behavior of various types of domesticated fish?
H19	111-441-62	T	BiocheMic	F/M	Richard Ho & Elizabeth Do & Christina Ngo	Analyzing the side effects of derived glyphosate from agricultural products on the functions of Escherichia Coli
H14	111-452-H2	T	BiocheMic	F/M	Loveleen Randhawa & Hasan Syed	The Effect of Toxic Chemicals on Bacteria
G42	111-690-62	T	MedHeaSci	F/M	Katelyn Stone & Wesley Liao	Comparison of Beta Amyloid Production by BACE1 and BACE2 Enzymes
F35	112-E40-E2	T	ElecEng	F/M	Eddie Wang & Cindy Wang	Smart Irrigation Systems
F33	112-E60-62	T	ElecEng	F/M	Siddarth Ramkrishnan & Anjali Mathi & Matthew Malto	Shower Water Conserver
E22	112-H31-92	T	SoftEng	F/M	Kyle Pu & Tiffany Nguyen	GuessLess
E34	112-H52-G2	T	SoftEng	F/M	Tom Zhang & Grace Kwak	Real Time Prediction of Vehicle Steering Angles using Convolutional Networks and Computer Vision on Dashcam Video
D46	113-541-H2	T	BioInfo	F/M	Tanaya Nawathe & Ria Nawathe & Keshav Gurushankar	Investigating the Role of Oxidative Phosphorylation in Myofiber Type Under Microgravity Conditions
D20	114-A70-22	T	Chemistry	F/M	Ellen Guo & Sonny Young	The Effect of Charged Spheres on CPE Conformations: The Creation of an Artificial Light-Harvesting Complex
D17	114-C10-A2	T	EarEnvSci	F/M	Iris Xia & Justin Cai	The Effects of Burrowing Animals and Mass Extinctions on Marine Ecosystems Through Earth History
D14	114-D20-F2	T	PhysAstr	F/M	Jin Tuan & Andrew Lu & Tanshi Jain	Star-Galaxy Separation and Discovery of Rare Halo Stars through Spectroscopic and Photometric Analysis of the Milky Way
C36	121-470-F2	T	BiocheMic	F/M	Helen Nguyen & Sophia Tran & Ezequiel Ponce	Targeting susceptibility to mutations in the cell cycle
C45	121-530-62	T	BioInfo	F/M	Krithika Nathamuni & Siddharth Iyer	Mathematical Model for the Pathfinding Abilities of Physarum polycephalum: Potential Application to Real Traffic Network
C47	121-540-22	T	BioInfo	F/M	Divya Rao & Aditya Rao	Machine Learning - Investigative Study of Classifiers in Melanoma Depth Estimation using 3D Reconstruction of 2D Images
C51	121-630-F2	T	MedHeaSci	F/M	Jackson Conte & Josephine Mantik	The Effects of Vitamin C on Kras G12D-mutant Adenocarcinoma Cells
B38	122-B70-B2	T	CheEnvEng	F/M	Vittal Thirumalai & Abida Diep	Keeping the Ocean Clean: A Novel Self-Sustaining Boat that Collects and Sorts Trash in the Ocean
B29	122-D40-72	T	PhysAstr	F/M	Matthew Dai & Jaylene Baltazar & Vincent Pham	Space Exploration: Creating a Robotic Control System in Microgravity
B20	122-E20-72	T	ElecEng	F/M	Cadence Boronkay & Vikasni Kalahasthi & Rushabh Shah	Blind Pedestrian Crossing Safety Device
B16	122-F20-G2	T	MechEng	F/M	Cyril Bhoomagoud & Jessica Valdez & Jacob Buettner	DroneTastic Corp.
B12	122-F40-82	T	MechEng	F/M	Oskar Attar & Jenna Young & Nathan Yacovetta	Converting car exhaust into electricity
A10	122-F70-D2	T	MechEng	F/M	Albert Zhao & Yanwen Ding & Erik Mitchell	Guitar Tuner (Gtuner)
A12	122-F80-92	T	MechEng	F/M	Kassandra Nguyen & Auguste Bruno & Martin Liu	Robotic Reduction & Removal of Algae Blooms
A20	122-H30-D2	T	SoftEng	F/M	Akshay Attaluri & Nithya Attaluri	Using Deep Learning for Classification/Segmentation and Contrast Agent

Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
						Development for Multimodal Brain Tumor MR Images
X24	124-D20-H2	T	PhysAstr	F/M	Cindy Wang & Ryan Hsu	Analyzing Gamma-ray Emissions of High-energy Blazars to Probe the Extragalactic Background Light
X17	124-D40-92	T	PhysAstr	F/M	Arya Maheshwari & Alexandra Masegian	Automated Classification of a Mysterious Population of "Weak CN" Stars in the Andromeda Galaxy
Y91	061-240-D2	T	PlantSci	M	Lane Redondo & Magdiel Venegas	What helps soil?
Y96	061-260-61		PlantSci	M	Praneel Shah	Investigating the Effect of Excess Carbon Dioxide on Plant Growth through Dry Ice
P99	061-290-B1		PlantSci	M	Krish Maheshwari	Effect of Wi-Fi signals on the growth of pea shoot plants.
P98	061-310-11		AnimalSci	M	Abbubakar Ansari	Compost Compost What is the effect of specific food sources on worm livelihood?
P97	061-320-E1		AnimalSci	M	Julian Aguirre	Dog Medics
P93	061-610-B1		MedHeaSci	M	Rishab Perati	Evaluating the Protective Effects of Commercially Available Nutritional Supplements on Genetically Induced Cancer Models
P92	061-620-71		MedHeaSci	M	Samarjit Deshmukh	The Anticoagulant Properties of Garlic, Ginger, Turmeric and Fish Oil
P90	061-640-G1		MedHeaSci	M	Aarush Gogineni	The Effect of Different Foods on the Concentration of Glucose based on Glycemic Index after Digestion
P89	062-A11-C1		Chemistry	M	Vir Bhutani	Which Natural Fat is the Most Unsaturated?
P88	062-A20-A1		Chemistry	M	Aidan Miranda	A Greener Environmentally Friendly De-icing Solution
P84	062-A30-61		Chemistry	M	Mamoon Khan	Effect of Concentrations of Ammonium Nitrate on the Temperature of a Cold Pack
P83	062-A50-F1		Chemistry	M	Jared Saal	How Particle Size Affects Viscocity In Chocolate
P80	062-A80-31		Chemistry	M	Rohit Mekkoth	Fuel Cells to the Rescue
P77	062-B10-61		CheEnvEng	M	Rithvik Desaraju	Bio-degradable Lemon Battery
P76	062-B20-21		CheEnvEng	M	Rohan Wilmot	The Effect of Various Substances on Water Evaporation Suppression
P73	062-B30-F1		CheEnvEng	M	Kyle Morley	Differences between the amount of volts created by a solar cell with different materials protecting it
P72	062-C10-F1		EarEnvSci	M	Anvit Mishra	Harvesting The Rain Water
P71	062-C11-D1		EarEnvSci	M	Rishi Prasad	What is the effect of acid rain (low pH/acidic precipitation) on plant life?
P70	062-C21-91		EarEnvSci	M	Paulo Cho	What is the effect of air pollution and weather on solar cell output?
P69	062-C30-71		EarEnvSci	M	Vaibhav Rau	Suppressing Evaporation
P68	062-C40-22	T	EarEnvSci	M	Arin Kathapurkar & Harsha Manamala	Duck Cover Hold
N68	062-C80-41		EarEnvSci	M	Jason Tsioutsiouliklis	The effect of the distance and the types of the mobile devices on the amount of radiation measured.
N69	062-C90-H1		EarEnvSci	M	Ayush Ghosh	Reducing Ocean Acidification Using Aquatic Plants
N70	062-D10-71		PhysAstr	M	Ian Widjaja	Optimal Fingering Position for Fortissimo Piano Playing.
N71	062-D11-51		PhysAstr	M	James Tsaggaris	The Effect of Heat on the Strength of Ferrite Magnets
N76	062-D30-G1		PhysAstr	M	Wilson Petersen	Super Fastener
N77	062-D31-E1		PhysAstr	M	Shawnuk Ballal	What is the effect of common household materials on volume dampening?
N81	062-D60-41		PhysAstr	M	Ishan Juluri	The Effect of Tuned Mass Dampers on Oscillating Buildings
N82	062-D70-G2	T	PhysAstr	M	Jerry Wang & Ethan Leung	Project Testing: Finding the Best Golf Ball
N84	062-D80-D1		PhysAstr	M	Aahan Shah	Effect of Mass and Thrust on the Speed of Propeller Zipline Cable Car
N85	062-D90-91		PhysAstr	M	Aambhi Patel	The effect of force on distance traveled by an object.
N88	062-E10-G1		ElecEng	M	Hamza Ali	Measuring radiation from my phone

Generated on 2019/03/08 11:10:43

Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
N89	062-E20-C1		ElecEng	M	Daniel Rohim	Effect of Battery Performance at Different Temperatures
N90	062-E30-81		ElecEng	M	Krish Kalra	Electromagnetic Induction
N91	062-E40-32	T	ElecEng	M	Neel Jagdish & Siddharth Phatak	Blue Light Exposed
N93	062-E50-G2	T	ElecEng	M	Anish Bhethanabotla & Aadtiya Mahajan	An elegant and cost effective way of measuring air quality using Arduino
N95	062-E60-C2	T	ElecEng	M	Samuel Fong & Stephen Jeyakumar	What materials can block a wifi signal?
N97	062-E70-91		ElecEng	M	Ayush Sodani	What is the effect of more turns in the coil on the amount of electricity created?
N98	062-F20-32	T	MechEng	M	Isaac Zucker & Doron Bentov & Ori Gillai	The WASP (wearable aerosol spray protection)
M99	062-F30-H1		MechEng	M	Sean Gustavson	How to Cheat at Clash of Clans: Engineering a Machine to Repeatedly Tap on an iPad
M98	062-F40-D1		MechEng	M	Hrishikesh Ankireddi	Impact of Ice on Aircraft Engines
M97	062-F50-82	T	MechEng	M	Elijah Cedar & Mason Golub & Benjamin Zukin	Maglev Train
M95	062-H10-91		SoftEng	M	Aaryan Doshi	Fight the Fire: An Innovative Software-Based Approach to Fire Prevention and Protection using Android Development
M94	062-H20-51		SoftEng	M	Brandon Do	The Self-driving Car
M89	071-130-B1		BehavSci	M	Noah Fond	Tempo Master: Testing Human Sensitivity to Tempo Changes
M81	071-230-31		PlantSci	M	Rohit Khorana	Which Plant is the Least Flammable
M80	071-240-G1		PlantSci	M	Jon Gleixner	The Effect of Color on the pH of Carrot Juice.
M79	071-260-72	T	PlantSci	M	Francisco Martin & Jorge Guhe	Sideways Plants vs Right Side Up Plants
M77	071-280-H1		PlantSci	M	Christian Degnan	The Power of EMF
M76	071-310-31		AnimalSci	M	Adam Feldman	Technologically advanced humane rodent trap
M71	071-420-81		BiocheMic	M	Austin Hu	Is Mouthwash as Effective as It Claims?
M67	071-460-91		BiocheMic	M	Rithvik Chavali	Do UV rays affect enzymatic concentration in certain fungi?
L66	071-480-11		BiocheMic	M	Shreyas Kapavarapu	Do oils with high MCT digest faster?
L67	071-620-91		MedHeaSci	M	Sadik Aref	Investigating effects of decongestant and coenzymeQ-10 on the heart rate of Daphnia
L71	071-710-51		BiomedEng	M	Abdullah Anwar	Developing an Artificial Pancreas
L77	071-730-E1		BiomedEng	M	Yashnil Saha	A Novel Approach to Measure Human Emotions Electronically Using Arduino Pulse Sensor
L82	071-760-21		BiomedEng	M	Andrew Nguyen	Electroactive Polymer (EAP) Prosthetic Hand
L83	071-780-A2	T	BiomedEng	M	Abhinav Harikrishna & Tanish Swarnapuri	Need A Hand
L85	071-790-62	T	BiomedEng	M	Ben Freda-Eskenazi & Navon Soussan & Dov Morris	Medkit AI: developing a CNN (Convolutional Neural Network) to diagnose skin level injuries, and conditions
L92	072-A40-41		Chemistry	M	Albert Yu	What is the effect of acetone solutions on the removal of spray paint on surfaces?
L93	072-A50-H1		Chemistry	M	Henry Yao	From Food Waste to Food Guard: Creating Chitosan-Based Bioplastic, and Its Effect on Food Packaging and Preservation
L94	072-A60-D1		Chemistry	M	Joshua Lang	How well do different types of sponges absorb water?
L95	072-A70-91		Chemistry	M	Harrison Wilmot	Which Bubble Solution is Best?
L98	072-B10-81		CheEnvEng	M	Jonathan Yu	A Simple Way to Save Oceans
K99	072-B11-52	T	CheEnvEng	M	Ryan Raphael & Devin Wong & Sean Tsui	Sustainable Plant Growth Anywhere, Anytime
K97	072-B12-41		CheEnvEng	M	Rayan SenGupta	Clean Water Transportation
K95	072-B22-H1		CheEnvEng	M	Adhav Saravanan	Harnessing Wind Power Using Household Items
K94	072-B30-H1		CheEnvEng	M	Sahas Goli	Filter of the Future

Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
K91	072-B32-D1		CheEnvEng	M	Rohan Lingam	UVPro: Increasing Oxygen Levels in Spacecrafts by Recycling O2 from the CO_2 Molecule using Simulated UV Light
K88	072-B50-91		CheEnvEng	M	Neel Sudhakaran	A New Fuel Cell Design
K82	072-B70-H2	T	CheEnvEng	M	Ashar Siddiqui & Neel Sharma & Kabir Sahni	Improving Oil Cleanup Equipment To Help Clean Up Oil Spills
K80	072-B71-F2	T	CheEnvEng	M	Muntazir Mohamed & Tanish Kumar	PICO-Green Energy
K78	072-B81-C1		CheEnvEng	M	Sidharth Kalje	Water-Efficient Sprinkler System
K77	072-B90-92	T	CheEnvEng	M	Jeremy Flint & Ryan Co & Noah Barlahan	Making Hydropower More Environmentally Friendly
K73	072-B91-72	T	CheEnvEng	M	Ari Katsav & Elan Smyla	Capturing Carbon Dioxide
K71	072-C10-H1		EarEnvSci	M	Eshan Rachapudi	Extracting Water from Humidity
K70	072-C11-F1		EarEnvSci	M	Keith Maben	What is the Effect of Nontoxic Surfactants on Dispersing Oil Spills?
K69	072-C20-D1		EarEnvSci	M	Cameron Nguyen	A Stethoscope for Geysers: Can variations in nozzle pressure predict eruption?
K66	072-C30-91		EarEnvSci	M	Rushil Saraf	Green Cooling
J66	072-C31-71		EarEnvSci	M	Brandon Tsai	The Moisture Trap
J73	072-C51-G1		EarEnvSci	M	Julian Schultz	Can Your Sweatshirt Save You? How effective are fabrics at lowering the particulate concentration of polluted air?
J76	072-C52-E1		EarEnvSci	M	Nilansh Ghosh	Search for a Low-Cost Material to Improve Air Quality.
J77	072-C60-E1		EarEnvSci	M	Rohit Vakkalagadda	Benevolent Bioplastics: What is the effect of the materials used to make a bioplastic bag on the mass it can hold?
J79	072-C62-A1		EarEnvSci	M	Vedant Janapaty	Water conservation - Drastically reducing surface water evaporation with improved water delivery techniques
J84	072-C80-61		EarEnvSci	M	Ameen Elshareif	Which Fabric is Most Biodegradable?
J88	072-C91-H1		EarEnvSci	M	Andrew Chandra	How Does Acid Rain Affect Plants?
J95	072-D40-E1		PhysAstr	M	Ishwar Suriyaprakash	Factors affecting the amplitude of sound propagating through a tube
J96	072-D41-C1		PhysAstr	M	Abhishek Rao	The effect of the shape of the front of a Hyperloop on its speed
J97	072-D50-A1		PhysAstr	M	Joseph Vazheparampil	Exploring Photochromics
J98	072-D51-81		PhysAstr	M	Justin Kim	The effect of the type of vertical stabilizer on the directional stability of an airplane.
J99	072-D60-61		PhysAstr	M	Michael Varnava	How to cool a bottle of water the fastest.
H99	072-D70-21		PhysAstr	M	Beckett Lyons	The Aerodynamic Of Truck Platooning
H95	072-E11-G1		ElecEng	M	Sameer Tangirala	Design of a efficient indoor solar charger
H92	072-E21-C1		ElecEng	M	Abhinandan Singh	Electricity Generating Roller Backpack
H88	072-E50-21		ElecEng	M	Adhip Raghunathan	Novel Electrochromic System to Regulate Internal Lighting
H85	072-E60-F1		ElecEng	M	Nicolas Quijano	Probing Haptic Glove for the Visually Impaired
H80	072-E90-31		ElecEng	M	Patrick Thai	Solar Glass Building
H79	072-F10-A1		MechEng	M	Aadit Golwala	Making an Offshore Wind Turbine Where the Entire Structure Turns into the Wind
H77	072-F12-61		MechEng	M	Terry Hsu	Robotic Control On Puppets- a First Study On Bionics
H76	072-F20-61		MechEng	M	Swastik Puratchepparambil	The Ergonomic Lunch Box
H70	072-F30-12	T	MechEng	M	Ethan Louie & Kyle Ogino	A Squishy Speed Bump
G78	072-F61-51		MechEng	M	Charles Huang	Dual-Purpose Boba Straw
G81	072-F70-31		MechEng	M	Victor Dang	Gas on Bike Tires
G82	072-F71-H2	T	MechEng	M	Anay Takkallapalli & Rishab Pala & Darrell Li	Whoa Watch Out
G84	072-F81-E1		MechEng	M	Atharvaa Jogalekar	Get a Grip: Robotic Arm to Help with Physical Impairment

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
G85	072-F90-C1		MechEng	M	Sanjit Borle	Automated Sun-Visor with photon detection
G90	072-G10-21		Math	M	Keshav Narang	Generalizing a Solution to the Tower of Hanoi with Varying Number of Pegs and Rings
G91	072-H10-B1		SoftEng	M	Rayyan Hussain	An application that helps students improve speech delivery using speech recognition and machine learning techniques
G93	072-H20-62	T	SoftEng	M	Aidan Liu & Yul Han & Selim Gurkas	Pedestrian Safety in a Driverless Automobile World
G95	072-H21-51		SoftEng	M	Alon Knaan	Bionic Xylophone Arm
G99	072-H41-E1		SoftEng	M	Vishnu Potharaju	Help Save the Planet - TrashRight
F98	072-H51-A1		SoftEng	M	Aneesh Bairagi	Coding Traffic
F97	072-H60-72	T	SoftEng	M	William Zhang & Ethan Liu	Modelling Wildfires with an Android App
F95	072-H70-32	T	SoftEng	M	Ben Zeitzer & Dan Honigstein	E-Sort: An electronic trash-sorting device
F92	081-130-C2	T	BehavSci	M	Stephen Xia & Jeremy Ko	The Effect of Fast-Paced Video Games on Short-Term Concentration
F85	081-160-H2	T	BehavSci	M	Rupert Chen & Mir Bahri	The High-Risk Decision Making Process
F83	081-170-D2	T	BehavSci	M	Emmett Chung & Aspen Shen	The Effect of Level of Interest in a Product on Reading a Privacy Policy/Agreement
F78	081-210-D1		PlantSci	M	Brian Chen	Validating Novel Algorithm-Generated Crop Rotations: A Second Year Study
F66	081-290-E2	T	PlantSci	M	Nicholas Wei & Jai Mehta	Shorter Days: The Effect of the Day/Night Cycle on Plant Growth in Indoor Farming
E70	081-350-61		AnimalSci	M	Nicolas Soto	Beetle maze runner- what is the effect of maze complexity on completion time?
E88	081-460-A2	T	BiocheMic	M	Johnny Kuehnis & Harper Brada	The potency of mold growth on different types of bread
E90	081-480-31		BiocheMic	M	Iyaad Ahammed	Magical Microbes:Producing clean energy using microbial fuel cells
E96	081-660-C1		MedHeaSci	M	Milan Del Buono	The effects of sugar alcohols on the common fruit fly
E97	081-670-81		MedHeaSci	M	Abhinav Nagabhirava	What is the Effect of Microwaving on the Vitamin C Content of Different Vegetables
D98	081-750-81		BiomedEng	M	Felix Liu	The Natural Spring
D93	082-A20-E1		Chemistry	M	Pranav Amarnath	Effect of acid on activity of salivary amylase enzyme in digesting starch
D92	082-A30-A1		Chemistry	M	Neil Pendyala	What is the most effective way of removing detergent from water?
D91	082-A40-52	T	Chemistry	M	Gordon Chen & Jacob Huang	Inhibiting Rabies at the Molecular Level
D89	082-A50-21		Chemistry	M	Dario Quintero	Measuring the Capillary Action of Various Kinds of Paper
D84	082-B20-61		CheEnvEng	M	Siddhesh Dash	The Design and Construction of Ember-Proof Tiles for Use by Those Living in Wildfire Prone Areas.
D83	082-B21-41		CheEnvEng	M	Matthew Lei	Variables that Affect AQI
D80	082-B50-A2	T	CheEnvEng	M	Aryo Nabyzadeh & James Thornton	Creating a more efficient storm drain design
D76	082-B90-C1		CheEnvEng	M	Harsha Rohan Rajkumar	Naturogenic Cloud
D71	082-C11-G2	T	EarEnvSci	M	Vasily Ermolenko & Jonathan Dimas	Emergency gas mask for smoke from forest fires
D69	082-C20-E2	T	EarEnvSci	M	Rahul Herrero & Ethan Joseph	Freshwater Pollution and its Effects on the Growth of Plants
D67	082-C21-C2	T	EarEnvSci	M	Krish Kumar & Anvay Deshpande	The Design of an Indoor Air Purifier
C66	082-C30-A2	T	EarEnvSci	M	Alexander Lan & Krish Maniar	Investigating CO_2 absorption in Chlorella to find the best environment to mitigate global warming
C69	082-C40-71		EarEnvSci	M	Rayyan Talukdar	"Compost at Work: Bioremediation of Pesticide/Herbicide Contaminated Soil".
C70	082-C41-51		EarEnvSci	M	Ben Hayes	Creek Stew
C71	082-C50-31		EarEnvSci	M	Muhammad Hashir Tahir	Can Nanotechnology help clean up ocean oil spills?
C72	082-C60-G1		EarEnvSci	M	Ateef Mahmud	Eutrophication: The De-oxygenating Epidemic in Water Bodies
C77	082-C90-32	T	EarEnvSci	M	Kinjal Govil & Uday Chaudhary	What is the effect of using compound wood boards on the overall

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
						flammability, durability and strength of the wood board?
C79	082-D10-B1		PhysAstr	M	Sritej Ponna	What is the Effect of Different Frequencies, Amplitudes, and Distances of Sound Waves on Fire
C80	082-D11-91		PhysAstr	M	Reese Byers	French Fire
C82	082-D30-22	T	PhysAstr	M	Rahul Santhanam & Brandon Wang	The Range of Velocities Required For Acceptable Kendama Makes When Factoring Different Measurements and Models
C85	082-D50-C1		PhysAstr	M	Kavin Saravanan	What is the effect of different helmet materials on the tensile strength of the material?
C91	082-D80-H1		PhysAstr	M	Etienne Vizian	How are the flow rates of different powders affected by the introduction of pressurized air?
C92	082-D90-C2	T	PhysAstr	M	Chris Wong & David Kipp	The Effect of Rotor Shape on Lift
C94	082-E10-22	T	ElecEng	M	Saahil Thoppay & Rahul Mulpuri	Harnessing Waves to Further Renewability of Electricity
C96	082-E11-11		ElecEng	M	Anirudh Venkatraman	Tremor Monitor
C97	082-E12-G1		ElecEng	M	Ishaan Agrawal	A Wireless Piezoelectric Auto-Charging Backpack for Mobile Devices
B98	082-E22-B2	T	ElecEng	M	Xavier Cairel & Avaneesh Aruva & Avishai D'Souza	Car Power Generator
B96	082-E30-C1		ElecEng	M	Kaushik Salem	A target acquisition system for landing aircrafts in constrained spaces using modified Hough Transform
B92	082-E50-32	T	ElecEng	M	Austin Wu & Sherif Abdou	Building a rescue robot
B88	082-E61-F1		ElecEng	M	Daniel Siegel	Surround3: The Design and Construction of a Sensor-Enhanced Probing Cane to Help the Visually Impaired
B85	082-E70-C2	T	ElecEng	M	Nico Patron & Sebastien Maes	Bike Power Generator
B80	082-E90-51		ElecEng	M	Adeeb Syed	How safe is your wallet? Blocking RFID readers from reading your ID cards
B71	082-F40-H1		MechEng	M	Alexander Nguyen	Exoskeleton Actuation
B70	082-F50-D1		MechEng	M	Christian Moran	Maximizing Golf Ball Performance by Studying the Effect of the Deepness of Its Dimples
B69	082-F60-91		MechEng	M	Roy Gross	Autonomous Ocean Robot
B68	082-F70-51		MechEng	M	Matthew Homan	Humidity to Infinity
A66	082-H11-A2	T	SoftEng	M	Rohan Bhowmik & Arjun Barrett	Using Machine Learning and Infrared Imagery to Detect Drunk Individuals
A68	082-H12-82	T	SoftEng	M	Saurish Srivastava & Shuhul Mujoo	Leveraging Machine Learning to Compute the Progression of Parkinson's Disease
A71	082-H21-71		SoftEng	M	Om Chhaya	Wearable Personalized Health Information System
A72	082-H23-31		SoftEng	M	Alan Lee	Machine Learning for Distinguishing Benign from Malignant Liver Tumors
A77	082-H31-22	T	SoftEng	M	Justin Hou & Juno Kim	Analyzing Images and Text Found Online with AI in Order to Determine if a Website is Educational
A79	082-H32-11		SoftEng	M	Sharad Parulekar	Dr.One: A Flying Angel to Keep an Eye on Seniors
A80	082-H40-H2	T	SoftEng	M	Andrew Fox & Max Blennemann	BrAIn Storm
A83	082-H42-E1		SoftEng	M	Joseph Thomas	Transfer Learning from Deep ImageNet Models to Simpler Models for Rapid Binary Classification
A88	082-H51-B2	T	SoftEng	M	Matthew Lee & Yong Won Choi	How the public's perception of Donald Trump changed over 10 years
A90	082-H52-A1		SoftEng	M	Yu-Ting Chang	Greedy, Yet Intelligent, Algorithms for the Game 2048 Using Python
A91	082-H61-81		SoftEng	M	Neel Gajare	Deep Neural Network and Image Recognition using Raspberry Pi
A95	082-H72-21		SoftEng	M	Stanley Shen	Using Recurrent Neural Networks to Predict the Trajectory of Symmetrical and Asymmetrical Objects

Generated on 2019/03/08 11:10:43

Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
A97	082-H81-H1		SoftEng	M	Rohan Siva	The Bane of Vulcan
Y11	091-130-F1		BehavSci	M	Sai Bhujangari	The effects of alanine increase in C. Elegans diet on the ability to detect NaCl from further distances
Y26	091-230-71		PlantSci	M	Rahil Kapadia	The Germination of Rice Using Hydroponics
Y29	091-320-31		AnimalSci	M	Jonah Tien	Measuring the Effect of Varying Electrical Current Frequencies on Controlled Stimulation of Cephalopod Chromatophores
Y41	091-360-41		AnimalSci	M	Tejas Rao	What are the effects of the cGMP dosage in C. Elegans on its thermotaxis?
Y52	091-430-81		BiocheMic	M	Zechen Liu	The effect of salinity on the nitrogen-fixation effects of Azospirillum Brasilense
Y53	091-431-61		BiocheMic	M	Shailesh Senthil Kumar	The Effect of Quorum Sensing Molecules on Extracellular Matrix Production in the S. Epidermidis Biofilm
Y54	091-440-41		BiocheMic	M	Tejas Bharadwaj	Effect of Glufosinate on the Ability of Microcystis Aeruginosa to Inhibit Aspergillus Flavus Growth
P57	091-460-D1		BiocheMic	M	Varchas Bharadwaj	Effect of Carbon Dioxide on the death count of Escherichia Coli infected with Bacteriophage T4.
P56	091-461-B1		BiocheMic	M	Ahmad Ismail	Exploring a Treatment for Candidiasis by Investigating Interactions Between Candida and Bacteria
P54	091-471-71		BiocheMic	M	Sasvath Ramachandran	The Effects of UVA Radiation on Hypsibius dujardini Reproduction Capabilities
P50	091-510-81		BioInfo	M	William Huang	Identification of Gene Signature Profiles of Asthma using Machine Learning
P49	091-520-32	T	BioInfo	M	Rishab Parthasarathy & William Zhao	SkinSight: A Novel Implementation of a Convolutional Neural Network to Recognize Skin Diseases
P47	091-530-G2	T	BioInfo	M	Harsh Deep & Kailash Ranganathan	Developing a Convolutional Neural Network to Process Images of Liver Cirrhosis
P42	091-610-H1		MedHeaSci	M	Anant Chaudhary	The Effect of Hyaluronic Acid on Collagen Production in C.elegans
P39	091-621-B1		MedHeaSci	M	Deepesh Aggarwal	Effects of Different Spices on Yeast Production
P37	091-650-11		MedHeaSci	M	Timothy Shao	The Increase of Food Allergies in Modern Society
P30	091-720-51		BiomedEng	M	Jason Co	The Multipurpose Prosthetic: Using 3D printing to create various attachments for amputees
P27	092-A20-G1		Chemistry	M	James Pham	Cheaper Smiles
P23	092-B20-81		CheEnvEng	M	Devin Gupta	The Effects of Cellulose/Polypyrrole Composite on Energy Retention Rates in Specialized Paper Thin Batteries
P22	092-B30-41		CheEnvEng	M	Ryan Shen	Using the Plastron Properties of a Super-hydrophobic Surface to create an Underwater Shelter
P20	092-B60-91		CheEnvEng	M	Rishab Gupta	Utilizing a network of sensors to predict the likeliness of a wildfire
P19	092-B70-51		CheEnvEng	M	Diptanshu Sikdar	Novel Hybrid Thermal Management Solution for Photovoltaic Systems
P18	092-C10-41		EarEnvSci	M	Abhay Kopardekar	The Use of Mealworms to Break Down Styrofoam
P17	092-C20-G2	T	EarEnvSci	M	Aryan Dwivedi & Tanush Goel & Kevin Li	Measuring the effect of different categories of compostable waste materials on the pH level of the compost produced
P14	092-C40-91		EarEnvSci	M	Surya Tallavarjula	Evaporative Cooling Optimization Study With Capillary Action Driven Water Transport
P11	092-D10-D1		PhysAstr	M	Reese Wiitala	Multilayered Thermal Shield Control for Small Satellites
N10	092-D20-91		PhysAstr	M	Krithi Koodli	A Novel Method of Distinguishing Habitable Rocky Planets from Uninhabitable Gas Giants using Machine Learning
N11	092-D30-51		PhysAstr	M	Rakesh Mehta	How does the size of nozzle affect ion engine's speed?

Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
N17	092-E30-E1		ElecEng	M	Saurav Gandhi	A Hand Dynamometer Controlled Computer Vision based AI Robotic Navigation System for the Visually Impaired and Elderly
N26	092-E70-F1		ElecEng	M	Anav Mehta	A Cheap Braille Literacy Assistant
N29	092-E90-71		ElecEng	M	Tejas Prabhune	Developing a Reusable LED Notifier for Consumers Using Expired Pills
N30	092-F20-92	T	MechEng	M	Ethan Buriel & Tyler Louie & Thomas Mathew	Making a more comfortable cooling mask that filters polluted air
N37	092-F60-B1		MechEng	M	Jordan Giang	Factors in Effective Fire Maintenance
N38	092-F70-71		MechEng	M	Erick Chevez	Pest Control with Electric Fields
N44	092-F90-G1		MechEng	M	Ethan Zuo	The Effect of Thermal Transfer Rate on Laptop Performance
N45	092-G10-61		Math	M	Alexander Zhang	The Effects of a Random Configuration of a Master Pyraminx on its Solveableness
N46	092-H11-D1		SoftEng	M	Aditya Indla	Intelligent Wildfire Early Warning System
N48	092-H20-B1		SoftEng	M	Rishi Pankhaniya	A Portable Pollen Counter
N50	092-H22-71		SoftEng	M	Vivek Bharati	Portendo: An inertial measurement-based device that predicts concussions in athletes playing football.
N51	092-H30-71		SoftEng	M	David Dai	Spanish and English-speaking Tweet Sentiment Analysis & Prediction of 2018 US Senate & Gubernatorial Election in Florida
N52	092-H31-51		SoftEng	M	Aeshon Balasubramanian	Improving the Safety of Self-Driving Cars with Deep Learning and Audio
N53	092-H32-22	T	SoftEng	M	Atreya Ghatak & Rohan Khubchandani	Developing Mobile Application: Traffic Law Advisory
N56	092-H41-11		SoftEng	M	Veer Doshi	Aiding Wildfire Rescue Operations through Mobile Geolocation Tracking, Geofencing and Data-Driven Prediction Modeling
M59	092-H51-E1		SoftEng	M	Shlok Shah	Creating a Non-intrusive Elder Care System
M57	092-H60-C1		SoftEng	M	Mahit Tanikella	Human Protein Atlas Image Classification
M56	092-H61-A1		SoftEng	M	Sohan Nannra	A system for tracking the distribution of tax-based revenues
M52	092-H71-61		SoftEng	M	Anish Iyyavoo	A novel approach to find optimal scheduling for doctors in hospitals using genetic algorithms
M50	092-H90-G2	T	SoftEng	M	Sumedh Shenoy & Arhan Mulay & Elliu Huang	The design and construction of a program to assess foot deformities to detect flat feet via MMS
M47	093-310-91		AnimalSci	M	Adarsh Ambati	An In-Field Diagnostic to Detect a Chytrid Fungal Amphibian Pathogen Using Ribosome Display and Lateral Flow Assays
M35	101-210-11		PlantSci	M	Robert Stanley	Testing Pontederia Cordata with Turbulence in Water for Pollutant Absorption Capability
M30	101-260-F1		PlantSci	M	Srikar Kolluru	Modeling the Effect of pH Changes on Digestive Enzyme Activity: An Application to Cancer
M27	101-330-12	T	AnimalSci	M	Prakrit Jain & Harper Forbes	Investigation of Compounds responsible for scorpion fluorescence and cuticle light sensitivity
M23	101-350-B1		AnimalSci	M	Chehan Wijayaratne	Do Ants need a GPS?
M17	101-440-71		BiocheMic	M	Nicholas Manuto	Expressing Alkane Degradation and Measuring the Biodegradation Efficiency
M16	101-450-22	T	BiocheMic	M	Andrew Dang & Joshua Park	The Effect of Materials and Their Properties on The Effectiveness of Solar Water Disinfection
M10	101-521-51		BioInfo	M	Shivek Narang	Predicting the Effect of Novel Missense Mutations in Neurological Disorders on Protein Structure and Function, in silico
L12	101-550-C1		BioInfo	M	Vardhan Agrawal	A Novel System for Cuff-Less Blood Pressure Monitoring

Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
L14	101-590-D1		BioInfo	M	Andre Mai	Ductal and Lobular Breast Carcinoma miRNA Expression
L18	101-630-C1		MedHeaSci	M	Logan Morley	The effects of N-Methylglycine on the pgp-3"F508 mutation in C. Elegans, modeling Cystic Fibrosis
L19	101-640-81		MedHeaSci	M	Nishan Reddy	Testing the effects of the herbicide, Glyphosate, on motor neurons within C. elegans
L22	101-650-41		MedHeaSci	M	James Ouyang	The Healing Abilities of Antioxidants on Drosophila with Blue Light Induced Photoreceptor Degeneration
L29	101-670-D1		MedHeaSci	M	Ruchir Kodihalli	A Novel Way to Determine if Organophosphates Cause Neurological Disorders
L32	101-710-C1		BiomedEng	M	Arnav Jhingran	HeartSense: Detecting cardiac abnormalities using a simple stethoscope recorder and analysis using a deep learning model
L33	101-720-72	T	BiomedEng	M	Shashank Venkatramani & Pranav Eranki	Asthma diagnosis and progression tracking through the use of non-intrusive wearable technology and respiratory analysis
L37	101-760-91		BiomedEng	M	Samarth Girish	Ortho-Analyzer: A Deep Learning Based Tool for Malocclusion Detection
L44	102-A40-A2	T	Chemistry	M	William Huang & Dawson Le	Water Resistant Swimming
L57	102-B90-H1		CheEnvEng	M	Aditya Tadimeti	The Effects of Different Aquatic Environments on the Rate of Polyethylene Biodegradation by Bacillus subtilis
L58	102-C10-62	T	EarEnvSci	M	Akshanth Srivatsa & iain jung & Jason Lo	The effect of $C4H6O4Ca$ and $Ca(OH)2$ on the growth of algae cyanobacteria Anabaena sp. when added to fertilizer
K48	102-D30-81		PhysAstr	M	Raj Sheth	Safe Cars? Not yet...
K47	102-E10-81		ElecEng	M	Michael Yuan	Sequential Monte Carlo Based Localization Robot
K46	102-E11-61		ElecEng	M	Andrew Chiang	3D LED Volumetric Display with Eccentric Rotating Blades
K45	102-E20-41		ElecEng	M	Sohom Roy	Gyroscopic Based System to provide Camera Stabilization and Object Detection/Tracking in Real Time
K39	102-E60-51		ElecEng	M	Aashish Kamidi	Automated Car Parking Assistant
K37	102-E80-E1		ElecEng	M	Joshua Lee	A Novel Method of Energy Harvesting Via RF-DC Rectifying Circuits for Use in Low-Power, Low-Profile Computing Systems
K33	102-F20-C2	T	MechEng	M	Hung Nguyen & Steve Nguyen & Kyle Fabia	The Effect of Foam Material Properties on Impact Noise Generation
K27	102-F60-E1		MechEng	M	Muhammed Shah	Go Kart Karzyness
K26	102-H10-11		SoftEng	M	Nicholas Hotelling	Estimating Volleyball Speed Real-time Using an Apple iPhone
K22	102-H12-E1		SoftEng	M	Aalok Patwa	Computationally Efficient, Accurate and Real-Time Detection of Colon Polyps Using Deep Neural Networks
K21	102-H13-C1		SoftEng	M	Nikhil Chandra	Automated Diagnosis of Cardiovascular Disease through Deep Learning
K19	102-H20-E1		SoftEng	M	Maciej Buszko	Swarm Navigation Control Systems for Connecting Tetrahedral Linear Actuator Robots
K18	102-H21-B2	T	SoftEng	M	Rohit Malhotra & Vivek Verma	Navigation for the Blind using Deep Learning and Image Processing
K16	102-H22-A1		SoftEng	M	Kaushik Tota	EcoBot: A Chatbot for Educating Users on Environmentalism and Climate Change
K15	102-H23-81		SoftEng	M	Siddharth Sharma	DermaDetect: A computer vision and machine learning approach for an accurate diagnosis of skin conditions and rashes
K12	102-H31-72	T	SoftEng	M	Sohan Talluri & Anant Bhatia	Machine-Learning based ASL Video Translation Glasses to simplify conversation with the deaf or dumb
K10	102-H32-61		SoftEng	M	Akul Datta	Can we prevent automotive accidents with pedestrians by creating cheap portable warning systems (PWS)?

Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
J10	102-H33-41		SoftEng	M	Sivaramakalyan Suvarna	A Deep Learning Based Music Judge for Music Learners and Competitions
J11	102-H40-61		SoftEng	M	Rohan Viswanathan	Advancing Social Interaction for the Visually Impaired Using Machine Learning Methodologies
J15	102-H43-H1		SoftEng	M	Avi Goel	A new means of analysis of chaotic systems via supervised learning, with respect to the stock market
J16	102-H50-21		SoftEng	M	Shray Alag	Applying Natural Language Processing to Mine Clinical Trials Data to Extract Unique Insights about Diseases, Drugs, SNPs
J17	102-H51-G2	T	SoftEng	M	William Nguyen & Allen Vu	Vertical Indoor Garden Automated by Arduino
J19	102-H52-F1		SoftEng	M	Munir Bshara	Protecting Digital Information in Post Quantum Computing Era
J20	102-H53-D1		SoftEng	M	Aadit Trivedi	Third Eye: A Smart Braille Assistant for the Visually Impaired
J26	102-H62-B1		SoftEng	M	Arvind Ramachandran	SafeRetro: A Secure Emulator for 8080 apps
J27	102-H63-91		SoftEng	M	Mehrzad Gandhi	Text Analysis with Computer Science
J30	102-H71-82	T	SoftEng	M	Srivishnu Pyda & Krishay Mukhija	Using Deep Learning Techniques to Develop Novel Inhibitors of Tyrosine Kinase
J37	102-H83-11		SoftEng	M	Nikhil Gargeya	Visualizing Endangered African Elephant Habitat Maps for Anti-Poaching Efforts
J38	102-H90-31		SoftEng	M	Nikhil Pitta	Accurate Triage System Using Machine Learning Algorithm Based On Vital Signs and Symptoms to Sort Patients by Severity
J39	102-H91-11		SoftEng	M	Sriteja Vijapurapu	Musical Navigation System for the Visually Impaired
J42	102-H92-G1		SoftEng	M	Bharat Kathi	Mapping Interent Topology Using Open Source Tools
J43	102-H93-D2	T	SoftEng	M	Ashwin Rajesh & Eric Hu	An Image-Based Archaeological Classification System using Computer Vision and a Convolutional Neural Network
J45	103-110-B1		BehavSci	M	Jason Lin	The Role of Relational Reasoning in College Student Learning
J49	103-510-D1		BioInfo	M	Josh Sanyal	Fully Automated Image Analysis Pipeline for Assessing the Aggressiveness of Prostate Cancer in Multiparametric MRI Scans
J51	103-530-42	T	BioInfo	M	Srinath Somasundaram & Andrew Lee	A Novel Design and Evaluation of a Machine Learning Approach to Stage and Prognose Lung Cancer through a Preliminary CT
J54	103-620-11		MedHeaSci	M	Michael Eng	Role of Host Cell Receptors in the Uptake of the Fungus Candida Albicans
J59	104-D20-E1		PhysAstr	M	Akash Dasgupta	Low-temperature Methods for Creating Stable, Optimal Efficiency Dye-Sensitized Solar Cells and Perovskite Solar Cells
H59	104-D30-A1		PhysAstr	M	Akhilesh Balasingam	The Search for a Better Synapse for Neurocomputing: A KMC Study of Defect-Modulated Non-Filamentary RRAMS Under Pulsing
H55	104-H20-G1		SoftEng	M	Arya More	Passwordless Authentication
H49	111-220-G1		PlantSci	M	Billy Nguyen	What is the effect of plant fertilizer nutrients on plant growth and nutrition?
H48	111-230-C1		PlantSci	M	Jerricho Habon	Effects of Caffeine on Plant Development
H47	111-240-72	T	PlantSci	M	Caleb Kim & Jonathan Ta	The Effect of Acidic Solution on Plants
H45	111-250-41		PlantSci	M	Yuvraj Gill	Companion Planting
H43	111-270-D1		PlantSci	M	Royal Huey III	Effects of Simulated Microgravity through Perpetual Falling on Raphanus raphanistrum Root Network Development
H35	111-320-81		AnimalSci	M	Timmy Pham	The Effects of Fertilizers and Pesticides on Invertebrates and Aquatic Plants
H27	111-420-H1		BiocheMic	M	Franklin Ruan	The Symbiotic Effects of Panax notoginseng (Ginseng) Extracted Steroid Glycosides on Kanamycin Resistant E-Coli
H22	111-430-D1		BiocheMic	M	Alexander Wu	In vitro models of meningeal lymphatic clearance on diffusion across

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
						the blood cerebrospinal fluid barrier
H17	111-442-51		BiocheMic	M	Hoang Tang	Effects of silver-chitin mixture on prostate cancer-cells
H12	111-460-11		BiocheMic	M	Ethan Kim	The Effects Of Vitamins A,B and D on colon cancer cell line LoVo
G11	111-480-A1		BiocheMic	M	Brayden Chipman	The Interactions of Synphilin-1 Proteins and SH-SY5Y Cells in Varying Insulin Environments
G15	111-510-D1		BioInfo	M	Chinmay Lalgudi	Investigating biomarkers in Parkinson's Disease for prodromal diagnosis and prediction of disease progression
G16	111-520-91		BioInfo	M	Pranav Kakhandiki	Automated Diagnosis of Aortitis using Machine Learning
G17	111-530-42	T	BioInfo	M	Carter Bian & Bhargav Hadya & Parth Pawar	Encephalitis Detection via Random Forest Algorithm of MRI and Electroencephalography (EEG)
G19	111-540-11		BioInfo	M	William Bai	A Novel Algorithm for Protein Structure Comparison
G21	111-560-A1		BioInfo	M	Tarun Chiruvolu	Toward Automated Pathology: Deep Learning for Breast Cancer Classification and Genomic Characterization
G22	111-570-61		BioInfo	M	Benjamin Lipman	Accurate Identification of Cardiac Anomalies Through Deep Learning
G26	111-580-12	T	BioInfo	M	Anish Somani & Sina Nakhkoob Niasari	A Novel Technique in Drug Design: Applying Dynamic Undocking to Modify Cdk-2 Inhibitors to Treat Deafness
G33	111-631-C1		MedHeaSci	M	Devin Shah	Using Amazon Alexa and AWS CloudWatch as an Analytical Tool to Assess Cognitive Function
G36	111-660-12	T	MedHeaSci	M	Hunter Liu & Saneel Khairnar	What is the effect of different components of sebum on the growth and reproduction of Propionibacterium acnes (P. acnes)
G38	111-670-F1		MedHeaSci	M	Ashvin Irrinki	A Novel Biomarker for Detecting CTE Utilizing TDP-43 Aggregated Deposits in Relation to Elevated Tau Concentration
G39	111-680-A2	T	MedHeaSci	M	Raymond Kuan & Derek Tan	Effects of phycocyanin in spirulina platensis on planarian tumor growth
G44	111-710-E1		BiomedEng	M	William Yang	Separating and counting red blood cells using microfluidic magnetophoresis, phone imaging, and machine learning analysis
G45	111-730-61		BiomedEng	M	Darshan Chahal	Validating the Efficacy of the Peanut Allergen Sensor, TestNut
G46	111-740-21		BiomedEng	M	Edward Ross	Designing a Better Waterproof Bandage
G49	112-A10-81		Chemistry	M	Alexander Guh-Siesel	Synthesizing Analogs of ?2-gliadin proteins to bind with HLA-DQ2 Receptors to eliminate Inflammation in Celiac Disease
G52	112-A30-H1		Chemistry	M	Hrushikesha Athreya	Using silicon to dope Titanium dioxide films to enhance the photocatalytic abilities of Titanium dioxide
G54	112-A70-H2	T	Chemistry	M	Timothy Nguyen & Alexandro Rivapalacio	Temperature as a lead abatement process
G56	112-B10-H1		CheEnvEng	M	Liam McHugh	Engineering Magnetorheological Fluid for Optimal Performance in a Variable Compression Damper
G58	112-B21-B1		CheEnvEng	M	William Chung Chung	Manipulating concentrations of plant-based starches to optimize durability for use in biodegradable plastics
F59	112-B40-51		CheEnvEng	M	Anderson Wang	Engineering an Efficient Super-capacitor with Inexpensive Electrolytes Derived from Organic Heterocyclic Cations
F58	112-B50-11		CheEnvEng	M	Jason Chen	Optimizing Simultaneous Saccharification and Fermentation of Invasive Undaria Pinnatifida to Create Bioethanol
F57	112-B60-E1		CheEnvEng	M	An Le	The Dependency of Voltage and Electric Current on Citric Acid

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
						Concentration and Different Types of Metals in Batteries
F56	112-B70-A1		CheEnvEng	M	Srinivas Balagopal	Bio-wall:Retooling walls into Carbon and VOC sinks
F55	112-B80-52	T	CheEnvEng	M	Ganesh Pimpale & Timothy Nguyen & Jyotaaver Nirula	Marine Autonomous Litter Collector (M.A.L.C.)
F53	112-B90-12	T	CheEnvEng	M	Rahul Shenoy & Yash Rao & Joshua Thomas	Water from air particles
F44	112-D10-11		PhysAstr	M	Milan Ganai	A Novel Segregation of Lorentz-boosted Higgs Bosons from the Biggest QCD Background with High Efficiency and Precision
F43	112-D30-A1		PhysAstr	M	Jeremiah Manning	Discrepancies Between the Simultaneous Localization and Orthodox Interpretation of Quantum Mechanics on Measurement
F42	112-E10-A1		ElecEng	M	Tyler Adams	Testing the Electrical Generation Possibility of a Multi-electrode Microbial Fuel Cell in a River System
F38	112-E20-52	T	ElecEng	M	Ojas Mor & Aayush Bhat	OmniVision: A wearable device to aid the visually impaired using echolocation.
F36	112-E30-21		ElecEng	M	Matthew Cho	A novel device for detecting objects using artificial intelligence and sound localization for the visually impaired
F31	112-E70-22	T	ElecEng	M	Terrence Te & Ethan Pang	Developing an application utilizing sound localization for the hearing impaired
F29	112-E80-G1		ElecEng	M	Ajosh Antony	Optimization of Figure-of-Merits of a Linear Permanent Magnet Brushless Synchronous Motor for a Cable-less Elevator
F28	112-E90-C1		ElecEng	M	Siddharth Das	An Intelligent Mechanism to Prevent Vehicle-Ramming Tragedies
F23	112-F20-E2	T	MechEng	M	Bogdan Kovtun & Steven Long	The Future of Unmanned Aircraft Systems: A Novel, Cost-Effective, Modular UAS Concept
F12	112-F80-81		MechEng	M	Ansel Austin	Clean Water For All: a Novel Filtration and Maintenance Mechanism for Improving India Mark II Water Pump Performance
F11	112-F90-32	T	MechEng	M	Luis Alcaraz & Jose Talon	The Role of Grain Size in Arch & Pillar Strength
E10	112-G10-A2	T	Math	M	Suhas Prasad & Raj Palleti	What Dimensional Isomorphisms Extend the Eulerian Sequence? A Computer-Inspired Analysis
E15	112-H13-E1		SoftEng	M	Tejaswi Vemulapati	Text Prediction For Mobile Devices Using Character-Level Recurrent Neural Networks
E17	112-H21-E1		SoftEng	M	Kunal Sheth	Modeling Type-Level Integers in Kotlin via Metaprogramming
E19	112-H23-A1		SoftEng	M	Jashan Pabla	Virtual Classroom
E20	112-H30-C1		SoftEng	M	Dadmehr Ghasemfar	Detection of Forest Fires through the use of Convolutional Neural Networks and other Algorithmic Techniques
E26	112-H32-72	T	SoftEng	M	Ashish Rao & Tejas Narayanan & Bidipta Sarkar	Novel Reinforcement Learning Methods in Collaborative Environments
E28	112-H33-61		SoftEng	M	Ashvin Maheshwar	Music To Your Eyes: Experience Music Through Emotion Extraction and Visual Transformation
E29	112-H40-72	T	SoftEng	M	Nikhil Satheesh Pillai & Aditya Sharma & Pranava Parasa	Virtual Voyage: Using 3D Sound Spatialization to Help Cortical Visually Impaired Patients through Machine Learning
E32	112-H43-21		SoftEng	M	Jonathan Park	Choose the Correct Products! Smart Speaking Glasses App to Find Food and Drug Allergens for Seniors
E33	112-H50-41		SoftEng	M	Nirmit Ashar	Smartsign, a translating tool for the verbally impaired using machine learning
E37	112-H60-H1		SoftEng	M	Raghav Ganesh	Developing a novel, accurate, and rapid machine learning based skin disease classification algorithm
E38	112-H61-F1		SoftEng	M	Lakshay Maharana	A novel machine learning algorithm to detect an arrhythmia using

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
						electrocardiogram images and data
E39	112-H62-D1		SoftEng	M	Truc Ho	A Machine Learning Approach to the Static Analysis of Malware Using Extracted Features
E42	112-H70-C2	T	SoftEng	M	Anshul Rao & Allen Chang	Predicting the Recurrence of Breast Cancer using Machine Learning Techniques
E44	112-H71-B1		SoftEng	M	Anthony Zhu	Predicting Areas of Increased Roadkill using a K-nearest neighbor Algorithm and Neural Network.
E45	112-H72-91		SoftEng	M	Robert Walker	Comparing Runtimes Across Software Implementations of Maze Solving Algorithms
E46	112-H80-82	T	SoftEng	M	Rehaan Ahmad & Brian Yang	Forecasting Vegetation Health Maps of Sub-Saharan Africa Using an Innovative Long Short Term Memory Based Algorithm
E52	112-H91-31		SoftEng	M	Rushil Saha	A Novel Approach to Image Registration with Fourier Transforms for Improved Accuracy and Efficiency
E57	113-310-E1		AnimalSci	M	Brendan Lin	Effects of MAPK Inhibitors/Stimulators on Planarian Regeneration
E59	113-411-41		BiocheMic	M	Aditya Behal	Novel Drug Development To Inhibit Nipah Virus Glycoprotein G Binding to Human Ephrin-B2 and Ephrin-B3 Receptors
D50	113-521-91		BioInfo	M	Jessie Wang	Using Single Cell Analysis to Identify Drug Resistance Mechanisms in Mixed Lineage Leukemia
D44	113-550-G1		BioInfo	M	Rohit Tanikella	Diagnosing Mental Disorders in 9-10 year olds using MRI scans and Deep Learning
D43	113-551-E1		BioInfo	M	Neil Kapoor	Effects of tumor suppressor gene alterations on lung adenocarcinoma using Tuba-seq pipeline
D39	113-570-81		BioInfo	M	Richard Hu	Using Voice Recognition Technology to Translate the Speech of the Vocally Impaired
D37	113-580-41		BioInfo	M	George Weale	How does the human microbiome impact immune cells?
D34	113-591-F1		BioInfo	M	Rushil Srivastava	Standardizing and Optimizing Skin Allergy Testing using Computer Vision
D27	113-710-G1		BiomedEng	M	Daniel Portillo	Make prosthetic bird beak better: improving the geometric design and looking for the right material
D26	114-A10-A1		Chemistry	M	Dean Tran	3D Printing of Silica Embedded Chitosan Aerogels for Supercapacitors
D21	114-A60-71		Chemistry	M	Aryan Goyal	An Automated Tool to Determine the Stability of CH4 and CO2 Clathrates using Molecular Dynamics and MLP Neural Networks
D18	114-B10-21		CheEnvEng	M	Daniel Kim	Characterizing Triple-Junction Silicon Solar Cells For Solar Fuel Production
D11	114-D40-81		PhysAstr	M	Bryan Wang	Studying Metals in the Circumgalactic Medium by Post-Processing Cosmological Galaxy Simulations
C10	114-H10-51		SoftEng	M	Sahil Jain	Binary Classification for Entity Linking Disambiguation with TFIDF Vectorization and SVM Linear Models
C11	114-H20-11		SoftEng	M	Gautham Raghupathi	Tracking Clathrin-Mediated Endocytosis in Stem Cells via Segmentation with Deep 4D Convolutional Neural Networks
C12	114-H30-E1		SoftEng	M	Patrick Yu	LEASGD: an Efficient and Privacy-Preserving Decentralized Algorithm for Distributed Learning
C17	121-250-61		PlantSci	M	Alexander Noriega	The Absorption and Relative Efficiency of Antifungal Properties of Allium sativum Powder With Phaseolus vulgaris.
C22	121-350-F1		AnimalSci	M	Joshua De Leon	Effects on New Hosts for Symbiotic Mites
C23	121-410-61		BiocheMic	M	Zeeshaan Chunawala	Magnetization of Incorporated Iron Oxide Nanoparticles as a Method for Combatting Candida albicans Biofilm Growth

Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
C28	121-420-21		BiocheMic	M	Greg Santangeli	Effect of Dissolved Urea on the Reproductive Rate and ROS Production of Dinoflagellates Under Thermal Stress
C29	121-430-E2	T	BiocheMic	M	Prithvi Saravanan & Tylee Bao & Noah Bae	What are the effects of positive/negative probiotics on cholesterol uptake?
C49	121-610-71		MedHeaSci	M	Ryan Judy	Determining the effect of ascorbic acid on viability of drosophila melanogaster with developmental nicotine exposure
B56	121-730-81		BiomedEng	M	Shivam Singhal	A Non-Invasive Tool for Cancer Diagnosis through the Optimization of Cell-free RNA and DNA
B54	121-750-H1		BiomedEng	M	Dulati Aideli	Optimizing The Coronary Stent By Designing Vibration Dampeners And A New Deployment Method
B53	121-760-D1		BiomedEng	M	Andy Carranza-Ochoa	A New Approach To Pressure Dressings For Wounds
B49	122-A40-F1		Chemistry	M	Payton Feldman	Antioxidant Activity of Melatonin Derivates in Alzheimer's Disease
B48	122-A50-B1		Chemistry	M	Viboll Thach	Comparing the Efficacy of Different Solvents in CO_2 Absorption
B47	122-A60-71		Chemistry	M	Emilio Cantu-Cervini	Mars Likes it Hot: The Effect of Dust Storms and Temperature on the Clay Bicarbonate Reaction
B46	122-B10-21		CheEnvEng	M	Prabhat Jandhyala	Creating a rechargeable battery by manipulating equilibrium constants or redox reactions
B43	122-B40-71		CheEnvEng	M	Duc Tran	Bandage Made from Brassica oleracea Used to Monitor Wound pH Levels
B42	122-B50-31		CheEnvEng	M	Ryan Mei	Sustainable Materials from Biofilms
B39	122-B60-G1		CheEnvEng	M	Vishal Menon	Effect of Temperature on the Efficiency of a Fuel Cell
B33	122-D10-31		PhysAstr	M	Avi Patel	Using HIFLUCGS Galaxy Clusters to Examine Systematic Elemental Abundance Differences between Chandra and XMM-Newton
B23	122-D60-H1		PhysAstr	M	Philip Kabranov	Accretion Analysis through Profile Decomposition of T-Tauri Stellar Spectra using Non-linear Least Square Minimization
B22	122-D70-D1		PhysAstr	M	Rustam Gandhi	Using Schlieren Imaging to Determine Refractive Indices
B21	122-E10-C1		ElecEng	M	Justin Quan	Network of Checkpoints and RFID-Equipped Apparel for Campus Security and Nonintrusive Tracking in Schools
B14	122-F21-E2	T	MechEng	M	Richard Le & Dan Tran	Open Says A Me
B10	122-F60-11		MechEng	M	Akash Vig	A Blue Light Filter Compatible With Any Mobile Device
A14	122-F90-52	T	MechEng	M	Minh Phan & Dien Nguyen	Shutter-Gutter
A16	122-G10-D1		Math	M	Pranav Atreya	Determining Expressions for Parameter Derivatives of an object with unknown Parameterization
A18	122-H20-H2	T	SoftEng	M	Govind Pimpale & Nitish Reuben & Marek Pinto	GPU Based Scalable Plant Architecture Simulation
A23	123-420-41		BiocheMic	M	Bennett Rosenberg	Analyzing Growth & Survivability of T. Molitor Gut Microbial Community when Carbon Source is Limited to Various PS Forms
A26	123-430-H1		BiocheMic	M	Jason Dong	Grape skin extract improves muscle function / lifespan of a Drosophila model of Parkinson's through mitophagy
A27	123-440-D1		BiocheMic	M	Vivek Kamarshi	Cellular Pathways for Increasing Fusion and Decreasing Replication of Varicella Zoster Virus
A29	123-470-11		BiocheMic	M	Kiran Rachamallu	Training a New Bacterial Model for Arsenic Treatment
A31	123-520-D1		BioInfo	M	Keval Shah	Quantitative Analysis of Breast Cancer Detection by B7-H3 Targeted Ultrasound Molecular Imaging

Synopsys Championship
Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
A33	123-540-51		BioInfo	M	Charles Huang	Characterization of NADPH Binding Patterns for the Rational Design of a Photoactivatable NADPH Analog
A34	123-550-11		BioInfo	M	Tarun Amarnath	Creating a Pipeline to Evaluate the Effects of anti-miRNA Oligonucleotides on Pancreatic Cancer Cells
X25	124-D10-51		PhysAstr	M	Tamur Asar	Calculating The Dynamic Range Resolution of Transition Edge Sensors Down to One Electron Volt to Investigate Dark Matter
X22	124-D30-E1		PhysAstr	M	Cameron Jones	Automated Identification of Organic Molecular Structure and Relative Concentrations from Telescopic IR Spectral Data
X15	124-E10-D2	T	ElecEng	M	Kavish Trivedi & Phillip Chau	Deposition and Characterization of Ultra Thin Zinc Oxide Films
X13	124-G10-F1		Math	M	Stanley Wang	Connectedness of the Moduli Space of Genus 1 Planar Tropical Curves
X12	124-G20-B1		Math	M	Shiva Balachander	Analysis of Long Short-Term Memory Neural Network Structures on the Accuracy of Stock Price Predictions
X11	124-H10-71		SoftEng	M	Ashwin Reddy	Can Demonstrations with Reverse-Curriculum Generation Reduce Robot Path-Planning Time?