

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
Y68	061-110-G2	T	BehavSci	F	Vani Putheti & Anjana Shyam	What is the difference in heart rate, blood pressure, and pulse? - video games vs virtual reality
Y69	061-120-D1		BehavSci	F	Safaa Hussain	To Praise or Not to Praise?
Y70	061-130-91		BehavSci	F	Leah Ning	How does music affect your typing speed and accuracy?
Y71	061-140-51		BehavSci	F	Manasvini Kothari	Name that Hue
Y72	061-150-11		BehavSci	F	Alexandria Pak	Time Flies By
Y73	061-160-D2	T	BehavSci	F	Danielle Gillai & Eliana Roy	Book versus iPad
Y74	061-170-A1		BehavSci	F	Rachel Larson	Does Age Affect the Memorization of Numbers?
Y75	061-180-61		BehavSci	F	Christine Xu	How does the size and age of the dog affect its adoption rate?
Y76	061-210-91		PlantSci	F	Jasmine Clancy	Grow, Grow, Grow Your Plants
Y77	061-211-71		PlantSci	F	Hooria Khalid	The effect of gray water on plants
Y82	061-220-51		PlantSci	M	Jonathan Swartz	The Amount of a dandelions Root that is needed to be pulled out to prevent future growth
Y84	061-221-22	T	PlantSci	F	Samantha de Kay & Michaela Tibbils	Plant pockets
Y85	061-230-11		PlantSci	M	Pareekshith Krishna	What is the effect of Seaweed on a Potato Plant's Growth?
Y86	061-231-G1		PlantSci	F	Kavya Pandrangi	Which indoor plant absorbs the most carbon dioxide?
Y87	061-240-E1		PlantSci	M	Shravan Kannan	What is the effect of nitrogen, carbon dioxide and ammonium phosphate on the growth of algae in a photobioreactor?
Y88	061-241-C1		PlantSci	F	Isabella Ayres	What is the effect of growth medium on plants
Y89	061-250-A1		PlantSci	F	Morgyn Tilton	Can plants stop soil erosion?
Y92	061-251-81		PlantSci	F	Natalya Sanchez	Eggshells versus Fertilizer
Y93	061-260-61		PlantSci	F	Annmaria Antony	Hydroponics: Preventing Water Loss
Y94	061-270-21		PlantSci	M	Benjamin Hayes	Fruit Weight Loss Through Dehydration
Y95	061-280-F1		PlantSci	M	Pranav Amarnath	The Effect of the Thickness of the Oil Layer on Production of Oxygen in Aquatic Plant Myriophyllum
P95	061-290-B1		PlantSci	F	Emma Lenchenkova	Saline Hydroponics
P94	061-320-E1		AnimalSci	F	Arti Gnanasekar	Investigating the Effects of Different Chemical Composition of Pesticides on the Survival of Honey Bees
P93	061-410-A1		BiocheMic	F	Arya Srivastava	Fighting Food Waste: The effect of E. coli on excess food
P92	061-430-21		BiocheMic	F	Nikita Senthil	Investigating the effect of different stress factors on the lipid production in green microalgae
P91	061-440-E2	T	BiocheMic	M	Harsha Rajkumar & Akhil Ramkumar	A Complete Plastic
P90	061-450-B1		BiocheMic	F	Chidubem Nwosu	Does Compost Enhance Plant Growth?
P88	061-460-62	T	BiocheMic	F	Reya Yeddula & Trisha Reddy & Anushka Parandekar	Lifeless to Luscious: Testing Brands of Lotion
P87	061-610-B1		MedHeaSci	F	Steffi Mathew	What is the effect of type of food and combinations of food on amount of probiotic bacteria grown on agar plates?
P86	061-640-G1		MedHeaSci	M	Aditya Srivastava	Canned versus Frozen foods
P85	061-650-C1		MedHeaSci	F	Medha Bhattacharya	Is it possible to predict or match current face pictures based on the childhood face pictures?
P84	061-660-72	T	MedHeaSci	M	Chris Bailon & Gabriel Aquino	Do expensive sunglasses protect you more than cheaper sunglasses
P81	062-A10-E1		Chemistry	F	Maya-Lauren Le	Feast of Yeast

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
P80	062-A11-C1		Chemistry	M	Alan Lee	How Effective is Silica Gel in Food Package and Does It Last Until The Expiry date?
P79	062-A21-81		Chemistry	F	Jillian Horowitz	Do the Number of Mints put into Water Affect the Temperature of the Water?
P78	062-A30-61		Chemistry	F	Aashirya Rai	Vitamin C in Green Veggies
P77	062-A31-41		Chemistry	F	Snikitha Banda	Graffiti Removal
P75	062-A40-12	T	Chemistry	M	Mason Chen & Amrit Janardhanan	Simulate Blood Fractionation Chromatology Project
P74	062-A41-H1		Chemistry	M	Stanley Shen	How do physical barriers affect the intensity of the UV rays?
P73	062-A51-C2	T	Chemistry	M	Aaron Doerger & William Man	Relieving by dissolving
P72	062-A61-82	T	Chemistry	F	Tatiana Daza & Jazmin Torres	Serious Soda Stains
P69	062-A70-71		Chemistry	M	Anirudh Venkatraman	Production of Bioplastics from Vegetable Waste
P68	062-A71-51		Chemistry	M	Nihal Gunukula	What temperature above room temperature freezes faster than cold water?
P67	062-A80-31		Chemistry	F	Joyce Yang	What is the effect of time and temperature on the amount of sodium nitrate and nitrite contained in processed meats?
P66	062-A81-11		Chemistry	F	Maya Patel	What type of material retains the most amount of heat in clothing
P65	062-A90-G1		Chemistry	F	Malini Iyer	The Effect of Viscosity on the Stability of Emulsions
P64	062-B10-61		CheEnvEng	F	Aditi Jain	Comparing the efficiency of different ferrofluids in cleaning up oil spills
P63	062-B20-21		CheEnvEng	F	Eleanore Kirshner	Soggy Sandwich Conundrum : Condensation-Free Ice Packs
P62	062-B30-F1		CheEnvEng	F	Lori Ching	Effect of Water Cohesiveness on Performance of Dew Traps
P61	062-B40-B1		CheEnvEng	M	Roshan Bellary	The effect of an intensification of a beam of light and time on the energy output of a solar panel
P60	062-B50-62	T	CheEnvEng	F	Tasha Lera & Emily Hwang	Size constraints of an under-water dwelling using everyday materials
N60	062-B60-31		CheEnvEng	F	Jenna Papenfuss	A Comparison Of Three Different Solar Powered Hot Dog Cookers
N61	062-B70-F2	T	CheEnvEng	F	Sarahy Cuatpotzo & Anahi Berumen	Smog catcher
N62	062-C10-F1		EarEnvSci	F	Namrata Nair	The Effect of Types of Polymer Materials in Soil on the Moisture of the Soil
N63	062-C11-D1		EarEnvSci	F	Nidhya Shivakumar	Halophytes:A Potential Solution for the Remediation of Soil in Saline Wastelands
N64	062-C12-B1		EarEnvSci	M	Christian Moran	Energy Production During the Year
N65	062-C20-B1		EarEnvSci	F	Sydney Stutzman	The Rate of Decay on Various Materials
N66	062-C21-91		EarEnvSci	M	Alex Althouse	Carbon sequestration with palm and fern
N67	062-C22-71		EarEnvSci	F	Mridula Naikawadi	Sources and Effects of Radiation Around Me
N68	062-C30-71		EarEnvSci	F	Leyla Murgia	Warkawater Tree
N69	062-C31-51		EarEnvSci	F	Maahika Gupta	What is the effect of photosynthesis in a Martian environment?
N72	062-C32-31		EarEnvSci	F	Miriam Gutierrez	Plant vs Soil Pollution
N73	062-C40-31		EarEnvSci	M	Yousuf Shaik	Conventional Oven or Solar Oven, which is more Efficient
N75	062-C41-H2	T	EarEnvSci	M	Jayden Oltmann & Kendrick Lam & Kylan Siwinski	Chlorine Filter Efficiency
N76	062-C42-F2	T	EarEnvSci	M	Tejas Oberoi & Ornob Barua	Finding Simple Ways to Purify Water
N77	062-C50-G1		EarEnvSci	M	Yusuf Atesoglu	The Effect of plastic bottles on reducing copper from contaminated water
N78	062-C51-E1		EarEnvSci	M	Connor Counts	The Cool Cooler
N79	062-C52-C1		EarEnvSci	M	Abhineet Pal	The Effect of Time Scales on the Measurement of the Local Geomagnetic Field
N80	062-C61-A1		EarEnvSci	M	Parth Kasmalkar	Earthquakes: How much shaking can these buildings take?
N81	062-C62-81		EarEnvSci	M	Brayden Callan	Which Seawall Shape Best Mitigates Storm Surges?
N84	062-C70-81		EarEnvSci	M	Talha Aziz	Burning Biomass Briquettes
N85	062-C71-61		EarEnvSci	F	Sophia Campbell	Earthworms' Diet and their Effect on Soil

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
N86	062-C80-41		EarEnvSci	M	Ayman Rabia	Impact of Different Oil Spill Cleaning Techniques on Water Quality
N87	062-C81-21		EarEnvSci	M	Tanush Maheshwari	The Effect of Accelerators on Composting Green Waste
N88	062-C91-F1		EarEnvSci	M	Jay Sampat	WAAS versus Regular GPS Mode
N89	062-D10-71		PhysAstr	M	Chester Tsze	Speed and spacing of dominos
N90	062-D11-51		PhysAstr	M	Sritej Ponna	Electromagnetic Fields
N91	062-D12-22	T	PhysAstr	F	Isabelle Latala & Caitlin O'Donnell	The Dropping Cell Phone Case
N92	062-D13-11		PhysAstr	M	Alexander Lee	Can You Hear Me Now? Materials and Construction Characteristics that Block Cell Phone Signals
N93	062-D20-31		PhysAstr	M	Rory Wilson	Is it possible to build a low cost gamma ray detector to detect spooky action at a distance?
N94	062-D21-11		PhysAstr	F	Koena Gupta	How Does Temperature Affect The Bounciness of a Bouncy Ball?
N95	062-D22-F2	T	PhysAstr	F	Abby Peyton & Alex Mull	Spastic Sound Waves
M95	062-D23-E1		PhysAstr	M	Christopher Wong	Motors and magnets
M94	062-D31-E1		PhysAstr	F	Agnes Wang	The effect of a rubber band's width on its spring constant and potential energy
M93	062-D32-C1		PhysAstr	M	Ishaan Agrawal	The Affect of different Modifications on a Structure's ability to withstand Seismic Waves
M92	062-D33-A1		PhysAstr	M	David Kipp	Downhill Coasting
M91	062-D41-A1		PhysAstr	M	Rishi Cherukuri	Investigating the Period of Oscillation of a Simple Pendulum
M90	062-D42-81		PhysAstr	F	Allison Bang	Which Ball Creates the Least Drag?
M89	062-D43-61		PhysAstr	M	Ruhan Gianchandani	Electric Eye
M88	062-D50-72	T	PhysAstr	M	Shrey Chaudhary & Aarush Arora	Measuring Gravity
M87	062-D51-61		PhysAstr	M	Siddharth Sai	STOP underwater noise pollution!
M86	062-D52-41		PhysAstr	F	Emily Chang	What type of fabric works best for parachutes?
M85	062-D53-21		PhysAstr	F	Kira Hah	The Effect of Temperature on the Speed of Sound
M84	062-D60-41		PhysAstr	M	Daniel Siegel	Measurement and Analysis of Resonant Frequencies in Thin Plates using Sound Waves
M81	062-D61-21		PhysAstr	F	Dhanashri Purohit	Zip Lines: Look Before You Leap
M80	062-D62-H1		PhysAstr	F	Avani Kulshreshtha	Thinking Thermal
M79	062-D70-G2	T	PhysAstr	F	Jacqueline Lee & Allison Lew	Surface Tension Overload!
M78	062-D71-F1		PhysAstr	M	Rohan Bansal	Let's Fly - The Effect Of Airfoil Design On Lift
M77	062-D72-D1		PhysAstr	F	Anika Pandey	Effect of Nano-particle Hydrophobic Paint on the Surface Tension and Surface Bonding of Water
M76	062-D80-D1		PhysAstr	M	Avanish Davuluri	Effect of Salinity on the Conductivity and Total Dissolved Solids of water
M75	062-D81-B1		PhysAstr	F	Sydney Gorin	Solar Cell Optimization
M74	062-D82-91		PhysAstr	F	Arya Prabhu	Up, Up, and Away! Aerodynamics
M73	062-D90-91		PhysAstr	M	Joshua Lu	Effect of Shapes of Wings on the Flight Distance
M72	062-D91-62	T	PhysAstr	M	Nathan Hoppe & Benjamin Morgan	What is the effect of the height on the marble drop on the marble looping the loop?
M69	062-D92-51		PhysAstr	F	Grace Cargill	Roller Coaster Magic: Converting Potential Energy to Kinetic Energy
M68	062-E10-F2	T	ElecEng	F	Shira Goldhaber-Gordon & Noga Rafalin	iPad Charging Bike
M67	062-E11-E1		ElecEng	F	Aisha Kazi	Walk n Light
M65	062-E20-B2	T	ElecEng	F	Salma Siddiqui & Kira Fredericson	Sound Monitor

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
M64	062-E21-A1		ElecEng	M	Ishan Kar	Hands Free Motion and Obstacle Detector for the Visually Impaired
M63	062-E30-72	T	ElecEng	M	Gil Rubinstein & Henry Kofman	Portable Energy Generator (PEG)
M62	062-E31-61		ElecEng	F	Dhwani Kharidia	Fast Energy Efficient Ultrasonic Dryer
M61	062-E40-41		ElecEng	F	Yael Peleg	Wearable Reminder
M60	062-E41-21		ElecEng	M	Nikko Baird	Converting radio waves into D.C. electrical energy
L60	062-E50-G2	T	ElecEng	F	Shira Rom & Gal Bejerano	Marble Mazes and Motor Skills
L61	062-E51-F1		ElecEng	M	Brennen Ho	Wearable GPS Tracker
L62	062-E60-D1		ElecEng	F	Ayana Wilmot	LED Gloves: A Communication Solution for the Hearing Impaired in the Dark
L63	062-E61-B1		ElecEng	M	Roy Gross	Radiocartography: Mapping the Unseen World of Radio
L64	062-E70-91		ElecEng	M	Bowen Hu	The Impact of The Generator Rotation Speed On AC Voltage And Frequency
L65	062-E80-51		ElecEng	F	Aanvi Gera	Electricity from Air. "What is the effect of elapsed time on electric charge harvested from electromagnetic waves in air
L67	062-E90-H2	T	ElecEng	M	Varun Sharma & Anshul Kolli & Agamjot Singh	Converting Body Heat Into Electricity
L68	062-F10-81		MechEng	F	Michelle Chen	Exploring the mechanical strength of stent unit cells with different patterns, widths, and thickness
L69	062-F11-61		MechEng	M	Neal Dwivedula	Temperature effects on solar cells
L72	062-F20-41		MechEng	M	Pramath Doddaballapur	Does the shape of the propeller blade affect the amount of lift generated?
L73	062-F21-21		MechEng	M	Shubham Mohole	Effect of angle of incidence of solar rays on the output current from the solar panel.
L74	062-F31-F1		MechEng	F	Mitali Mittal	Techniques for efficient sound insulation
L75	062-F40-C2	T	MechEng	M	Zach Berman & Sammy Burns	Motorized Egg Cracker
L76	062-F41-B1		MechEng	M	Affanuddin Syed	The Strongest Bridge of All
L77	062-F50-91		MechEng	M	Brian Chen	RotorCar: A Novel Idea to Reduce Traffic Using Flying Cars
L78	062-F51-71		MechEng	F	Romina Jately	The BOHBOJ Crib
L79	062-F60-51		MechEng	M	Saurish Srivastava	ETSBot: A Novel Cost Efficient Approach To Solve The Issue of Endangered Species
L80	062-F61-31		MechEng	F	Jia Gill	How Different Types of Foundations Affect a Building's Resiliency Towards Earthquakes
L81	062-F80-E1		MechEng	M	Ben Gleixner	Save The Ship
L84	062-F90-A1		MechEng	M	Yu-Ting Chang	The Most Precise Nerf Dart
L85	062-H10-82	T	SoftEng	F	Lara Lew-Strass & Sarah Stern	Rolling Phone!
L86	062-H20-51		SoftEng	M	Abdulrahman Naveed	Self Driving Car Technology
L87	062-H30-11		SoftEng	M	Rohan Sinha	Location Notification System
L89	062-H60-61		SoftEng	M	Parth Hathalia	Moisture Detection Platform
L90	062-H70-21		SoftEng	M	Simon Koski	Going Up? Using a Genetic Algorithm to Optimize Elevator Controllers
L91	062-H80-F1		SoftEng	M	Rohan Siva	Farmers Intelligent Helper
L92	062-H90-B1		SoftEng	F	Khushi Nigam	Home Robot 9267X - Make Life Great Again
L93	071-130-B1		BehavSci	F	Mica Horton	Social Media: Does It Affect Your Reputation?
L95	071-140-62	T	BehavSci	M	Ansh Chaurasia & Keshav Srikant	How does the amount of video game time affect our memories?
K95	071-150-31		BehavSci	F	Isabella Hilton	How can your heart rate and blood pressure affect the way you ride a roller coaster?
K94	071-160-F2	T	BehavSci	F/M	Sharona Schwab & Leor Porat	Get Your Trash Right
K93	071-210-B1		PlantSci	F	nithika karthikeyan	The effect of genotypes on the phytoremediation of heavy metals, introduced by fracking, in soil.

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
K92	071-211-91		PlantSci	M	Joel Abraham	Hydroponics
K91	071-220-71		PlantSci	M	Aarav Billore	What is the Effect of Nitrogen Fixing Bacteria on the Biomass of a Pea Plant after One Month of Growth?
K90	071-221-42	T	PlantSci	F	Sahana Ravishankar & Pooja Manapat	Light vs glass
K89	071-230-31		PlantSci	F	Diya Iqlas	Which Starch Plant produces the most fuel?
K88	071-231-11		PlantSci	F	Aasia Hasan	How will phosphorus supplements affect growth of the stem and development of leaves of a plant grown with hydroponics?
K87	071-250-C1		PlantSci	M	Ezekiel Flores	Mini Hydroponics With Grow Lights
K86	071-260-81		PlantSci	F	Aylin Salahifar	Comparing Biodegradable versus Biobased Laundry Greywater on Plants
K85	071-270-41		PlantSci	F	Jeevet Kaur	To grow or not to grow
K84	071-280-H1		PlantSci	F	Madeleine Chow	Remove CO2 From Water Using Plants And Macroalgae
K81	071-310-31		AnimalSci	F	Divya Sundar	The Effect of Different Concentrations of Biopesticides and Chemical Pesticides on Earthworm Mass and Growth
K80	071-410-C1		BiocheMic	F	Prithi Srinivasan	Is Salt better than Soap?
K79	071-420-81		BiocheMic	M	Nimai Talur	Inhibiting Biofilms
K78	071-430-41		BiocheMic	M	Ahmad Ismail	Effect of structure and behavior of antifungal agents on the treatment of Candidiasis
K77	071-440-H1		BiocheMic	F	Lydia Cheng	Mealworms chow-down on plastic: The effect of using different kinds of plastic to see the effect on the mealworms' diet
K76	071-610-D1		MedHeaSci	F	Varsha Chilukuri	The Effect of Different Brands of Ibuprofen combined with different types of foods on the dissolution of the tablets
K75	071-710-51		BiomedEng	M	Adarsh Ambati	Low-Cost Cloud-based Contactless Vital Signs Monitor using Photo Plethysmographic Imaging & Infrared Sensing Techniques
K74	071-720-11		BiomedEng	M	Yash Tipirneni	Personal MD - Life Saver
K72	071-730-D2	T	BiomedEng	F/M	Liv Levin & Dana Toussieh & Jacob Gans	Zzzleep
K69	071-750-61		BiomedEng	F	Mahati Manda	Modeling Angioplasty: Detection of Density of Calcium Carbonate Deposits in Tubes
K68	072-A10-G1		Chemistry	F	Pujita Tangirala	A Green, Low-Cost Adsorbent for the Removal of Dye from Aqueous Solutions
K67	072-A11-E1		Chemistry	F	Sovie Shekhar	The Amount of Time Taken for the Oil Spill Polymer, Enviro Bond 403, to Add-on to Different Oils in Tap and Salt Water.
K65	072-A20-B2	T	Chemistry	M	Spencer Cha & Ashwin Kannan	Electricity Outputs From Different Exothermic Processes
K64	072-A21-A1		Chemistry	F	Anousha Athreya	The Effect of Light on the Potency of Antioxidants in Spices
K62	072-A30-72	T	Chemistry	F	Natalie Perrochon & Gabby Farber & Naomi Barkan	Keeping apples beautiful: Which fruit's juice is the best for preserving apples?
K60	072-A40-41		Chemistry	F	Safa Mohammad	Increased hydrogen production in sea water electrolysis
J60	072-A41-21		Chemistry	M	Zoraiz Sabeel Syed	Efficient process to recycle waste cooking oil into reusable Biodiesel
J61	072-A50-H1		Chemistry	F	Ushoshi Basumallick	Let the Light Decide - Testing the compositions of common household liquids using a home made SpectroPhotoMeter
J62	072-A60-D1		Chemistry	F	Lilian Shen	How are teeth affected by fluorides, acids, and beverages?
J63	072-A70-91		Chemistry	F	Mary Shen	Detection of Bacteria Spoilage In Milk With Different Fat Contents
J64	072-A80-51		Chemistry	M	James Huang	The effect of Aspergillus oryzae on a sake beverage's alcohol content (ABV)
J65	072-A90-11		Chemistry	M	Samuel Molson	Laser sugar measurer
J66	072-B11-52	T	CheEnvEng	M	Sohan Nannra & Timothy Shao	Free Energy Emergency Lighting
J67	072-B20-32	T	CheEnvEng	F	Shanaya Malik & Archanaa Ramakrishnan	Burn Those Calories!

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
J68	072-B21-21		CheEnvEng	F	Princess Bergado	Water Bottle with Built-in Filter for Healthy Alkaline Water
J72	072-B30-G2	T	CheEnvEng	F	Alana Yee & Bhavya Sankarappan	Testing the Effect of Temperature on Solar Cell Performance
J73	072-B31-F1		CheEnvEng	F	Herin Kang	Algae Oxygen Generator
J74	072-B40-D1		CheEnvEng	F	Samika Swamy	BioFresh Food Smarts: An eco-friendly, smart solution to reduce wastage of climacteric produce.
J75	072-B50-91		CheEnvEng	M	Ronan Ellerby	Effect of Chicken Living Conditions on Eggshell Properties
J76	072-B60-51		CheEnvEng	M	Arhan Rout	Solar enabled plant bed that optimizes available sunlight and conserves water for farmers
J77	072-B70-11		CheEnvEng	F	Marijka Vernooy	Growing With Greywater
J78	072-B80-E1		CheEnvEng	F	Prakriti Pragya	What is the effect of different photocatalysts on the amount of hydrogen produced in five minutes
J79	072-B90-92	T	CheEnvEng	F	Jessica Wang & Jordyn Leak	Best Shampoo for Longest-Lasting Dye
J80	072-C10-H1		EarEnvSci	M	Austin Chen	Water Purification: Membrane
J81	072-C11-F1		EarEnvSci	F	Elana Dayen	Tsunami Generator
J84	072-C20-D1		EarEnvSci	M	Sameer Rao	The Effect of the Age of Cars on Levels of Carbon Monoxide Emission
J85	072-C21-B1		EarEnvSci	M	Luke Zhang	Does the concentration of salt in water affect its evaporation rate
J86	072-C30-91		EarEnvSci	M	Keshiv Tandon	Energy Conservation Using Color of Paint on Houses
J88	072-C31-62	T	EarEnvSci	F	Catherine Tan & Josephine Tzou & Darshna Kulkarni	Solar Desalination
J89	072-C40-51		EarEnvSci	F	Aisha Khan	Water Permeability in Soil
J90	072-C41-22	T	EarEnvSci	F	Katerina Vlahopoulitis & Madison Perone	Blue/Green Algae
J91	072-C50-11		EarEnvSci	M	Surya Tallavarjula	Development of Blocking Disc Method to Water Plants and Trees Efficiently and to Reduce Water Usage
J92	072-C60-E1		EarEnvSci	F	Danya Balagopal	Recycling Food Waste to Sequester Carbon, Improve Soil Nutrition, and Growth of Plants in Urban Environments
J93	072-C61-C1		EarEnvSci	F	Sukriti Badami	I'm Trying to Breathe Here!
J94	072-C80-61		EarEnvSci	F	Tanvi Rao	An Energy Efficient Home that Can Maintain Year Round Temperature.
J95	072-C90-21		EarEnvSci	F	Sofia Aliamus	Oxygen Concentration: Forest vs. City
H95	072-D10-91		PhysAstr	F	Aisha Aslam	What is the Effect of Difference in Intensity of UV Rays with Different Sources: the Sun Versus Tanning?
H94	072-D11-71		PhysAstr	M	Shreyas Basu	Changing the Speed of Light
H93	072-D20-51		PhysAstr	F	Nethra Srinivasan	Fluid Mechanics: The Effects of Temperature on a Liquid's Viscosity
H92	072-D21-31		PhysAstr	F	Shweta Arun	Projectile Predictions: What is the effect of the horizontal velocity and launch height on a projectile's landing point?
H90	072-D30-H2	T	PhysAstr	M	Ethan Maruyama & Andrew Li	How does wind speed affect drone battery life?
H89	072-D31-G1		PhysAstr	F	Loretta Ting	Roller Coaster Marbles
H87	072-D40-D2	T	PhysAstr	F _M	Nitya Rajendrarao & Samrath Sandhu & Sydney Taloma	Star Light, Star Bright: Does Light Intensity Change With Distance?
H86	072-D41-B2	T	PhysAstr	M	Enzo Teddy & Nikolas Teddy	What is the Effect of Garbage Bags on Water Temperature
H85	072-D51-81		PhysAstr	F	Xenia Torres	How Does Heat Transfer Through Metals vs. Alloys?
H84	072-D60-61		PhysAstr	F	Andrea Liu	Paddle Choices for Optimal Speed
H81	072-D61-32	T	PhysAstr	F	Noa Talmor & Aurora Zeltser	How does changing temperature of a magnet affect its magnetic field strength?
H80	072-D70-21		PhysAstr	M	Sohum Pavaskar	Thermal Conductivity

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
H79	072-D71-H1		PhysAstr	M	Iyanu Olukotun	Heating the Moon: Creating a Thermal Mass to Warm the Lunar Surface
H78	072-D80-F1		PhysAstr	M	Justin Gubbens	How quickly does a focused picosecond green laser cut different metal and non-metal materials with accuracy?
X10	072-D90-B1		PhysAstr	M	Arnav Gupta	Effect of Temperature on Magnetic Strength
H76	072-E11-F2	T	ElecEng	M	Yoav Segev & Yahli Einav	Automatic dry dog food dispenser
H75	072-E12-D2	T	ElecEng	M	Lorenzo Beronilla & Ryan Liu	Blind Sight Cane
H74	072-E20-E1		ElecEng	M	Michael Lutz	Harvesting Electricity from Heat
H73	072-E21-C1		ElecEng	M	Diptanshu Sikdar	Wireless charging via an Ultrasonic - Piezoelectric Bridge
H72	072-E22-A1		ElecEng	F	Sindhu Saggeri	Wearable Light
H69	072-E30-A1		ElecEng	M	Hamza Said	Spice up the Power of Microbial Fuel Cell
H68	072-E32-61		ElecEng	F	Akshita Ponnuru	The Future for the Blind: A Navigation System Promoting Independence
H67	072-E40-61		ElecEng	M	Farzan Hashmi	Using IR detection to help the blind in mobility
H66	072-E41-41		ElecEng	M	Gurman Dhami	How does the amount of magnet wire on an electromagnet affect its strength?
H65	072-E42-21		ElecEng	F	Iris Zhou	Speed Detecting and Warning Device
H64	072-E50-21		ElecEng	F	Camilla Lindh	Visually Impaired Navigator
H63	072-E51-H1		ElecEng	M	Jacob Vuniwai Turagavou	Glasses Finder
H62	072-E52-F1		ElecEng	F	Chelsea Kawamura	Using Deep Learning Techniques to Detect Traffic Signals
H61	072-E60-E2	T	ElecEng	M	Adam Vichik & Eric Cohan & Matan Sandhaus	Mouse Glove
H60	072-E61-D1		ElecEng	F	Isita Talukdar	Navigational Techniques In Self Driving Cars
G60	072-E70-B1		ElecEng	F	Sinaya Joshi	A novel system for the reduction of drowning deaths in young children
G61	072-E71-91		ElecEng	M	Kiya Zadeh	Wi-fi strength through blockades
G62	072-E80-62	T	ElecEng	M	Cole Bregman & Nathaniel Hahn	The creation of a system that will free a dog during a fire
G64	072-E81-42	T	ElecEng	M	Saurav Gandhi & Jason Co & Jackson Moody	The iCane
G66	072-E90-22	T	ElecEng	M	Roy Neumann & Amitai Smyla	Shoot Those Hoops: Basketball Scorekeeper
G68	072-E91-H2	T	ElecEng	F _M	Vivek Atmuri & Rhea Jain & James Pham	How Accurate Is Your FitBit?
G72	072-F10-92	T	MechEng	M	Robert Targ & Roy Cohen	Automatic Marshmallow Roaster
G74	072-F11-81		MechEng	M	Krishna Mani	Building an Endurance UAV
G76	072-F12-52	T	MechEng	F	Neha Mandava & Amanda Kay & Amy Larson	The Litterbug: An EV3 Mindstorms Trash-Collecting Robot
G77	072-F21-41		MechEng	F	Tavleen Kaur	Does the type of liquid affect the maximum ratio of a hydraulic system? Can hydraulics be used to power household items?
G79	072-F22-12	T	MechEng	M	Cesar Martinez & Angelos Panou & Ross Raineri	Lights On, Bacteria Off
G80	072-F30-21		MechEng	M	Akshay Attaluri	Tsunami Guard: Finding the Most Effective Wave Breaker Design
G81	072-F31-H1		MechEng	F	Molly Orman	Softball Gear Holder
G84	072-F32-E2	T	MechEng	M	Pranav Ramesh & Jonathan Cohen	Window Cleaning Robot
G85	072-F40-F1		MechEng	F	Shraya Pal	The Smart Cane
G86	072-F41-D1		MechEng	F	Kaliya Bond	Fruit Catcher
G87	072-F42-B1		MechEng	M	Vedansh Goenka	Mag-Tag Magnetic Locking System
G89	072-F50-A2	T	MechEng	F	Aru Rastogi & Nina Phatak & Diya Dhindsa	Creating an Earthquake-Resistant Building
G90	072-F51-91		MechEng	M	Afifuddin Syed	Skateboard Improvement
G91	072-F60-71		MechEng	F	Ruhi Saripalli	Dry 'em the Green Way!
G92	072-F61-51		MechEng	M	Rahil Kapadia	Cooling Arm Sleeve

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
G93	072-F70-31		MechEng	M	Arijit Ghoshal	Mechanical Advantage of Various Gear Trains
G94	072-F71-11		MechEng	F	Anna Jun	Strength of Honeycomb Structures
G95	072-F80-G1		MechEng	M	Pranav Varmaraja	Designing a New Traffic System for the Bay Area
F95	072-F81-E1		MechEng	F	Navya Agrawal	Motion detecting walking stick for the visually challenged
F94	072-F90-C1		MechEng	M	Aeshon Balasubramanian	Solar Powered Thermoelectric Cooler
F92	072-F91-92	T	MechEng	M	Rishab Gupta & Tyler Louie & Akash Vig	Trash Compactors
F91	072-G10-21		Math	M	Brian Chang	A Numerical Solver for Finding the Distance a Ball Will Travel in Any Medium
F90	072-H10-B1		SoftEng	M	Shlok Shah	Autonomous vehicle crash avoidance algorithm
F89	072-H11-91		SoftEng	M	Krithi Koodli	Design of an Energy Device using Computer Simulation of Ionization
F88	072-H12-71		SoftEng	M	Krishna Ajarapu	Alerting Others Using an Accelerometer: A Sleepwalker's Aid
F87	072-H20-71		SoftEng	F	Allyson Chiu	Forget Me Not Child Warning System
F86	072-H21-51		SoftEng	F	Veda Kamaraju	BlindAssist: A Novel Low-Cost Portable Device for Efficient Time Management to the Visually Impaired
F84	072-H22-22	T	SoftEng	F	Alexis Houle & Andrea Blazquez	Procrastination: the app that helps kids stay focused on school work.
F81	072-H30-31		SoftEng	M	Rishi Pankhaniya	Designing a Wristband to Aid the Visually Disabled
F80	072-H31-11		SoftEng	M	Keshav Balaji	Third Eye: The Helpful Eye for the Visually Impaired
F79	072-H32-G1		SoftEng	F	Shailee Nanavati	Student Life Helper Audio App
F78	072-H40-G1		SoftEng	M	Saisanthosh Musku	Pedometer that tracks Distance and Time per step
F77	072-H41-E1		SoftEng	F	Sneha Revanur	Developing Multi-Indicator Cluster Analytics to Improve Global Child Welfare
F76	072-H42-C1		SoftEng	F	Manvitha Pabbathi	Mobile Sleeper
F75	072-H50-C1		SoftEng	F	Arya Rajesh	An IoT For Detecting Forest Fires
F74	072-H51-A1		SoftEng	F	Impana Chimmalagi	We The Passengers (Pi and Python Can Save Airplane Tragedies)
F73	072-H52-81		SoftEng	F	Oviya Seeniraj	Debate Judging Assistant
F72	072-H60-81		SoftEng	F	Sanjana Jilla	Tempus Genie 2.0
F69	072-H61-61		SoftEng	F	Annika Viswesh	Oculus Patch Assistant
F68	072-H70-41		SoftEng	F	Deepali Joshi	Disease infographic
F67	072-H71-21		SoftEng	F	Anisha Narurkar	Smart Alert system for seniors
F66	072-H80-H1		SoftEng	M	Guy Knaan	Voice Swap
F65	072-H81-E2	T	SoftEng	F	Riya Gupta & Apoorva Talwalkar	Dance Imagination: Projecting Real-Time Special Effects Based on a Dancer's Motion
F64	072-H91-B1		SoftEng	F	Cady Chen	Toxic Plant Detector for Dogs
F63	081-120-G2	T	BehavSci	F	Anika Fuloria & Vidya Jeyendran	What is the effect of colored noise on students' concentration?
F62	081-130-D1		BehavSci	F	Olivia Carlino	Fast Talker.
F61	081-140-91		BehavSci	F	Genevieve Whitmer	The Phenomenon of Choice Blindness with Male and Female
F60	081-150-51		BehavSci	F	Alexandra Baeckler	The Effect of Given Names on a Shelter Animal's Adoptability
E61	081-160-H2	T	BehavSci	F	Betsy Tian & Luisa Pan	Studies of the Learning Behavior of the Single Cell Organism, Stentor coeruleus, Under Various Types of Stimuli
E62	081-180-92	T	BehavSci	F	Maria Vazhaeparambil & Advika Phadnis	The Effect of Stress Relievers on Student Performance
E63	081-190-52	T	BehavSci	M	Anmesh Ghosh Dastidar & Aditya Tadimetri	The Effects of Cardiovascular Exertion on Standardized Test Taking
E65	081-210-C2	T	PlantSci	M	Alex Zhai & Ray Wang	How do different concentrations of sodium chloride affect the growth rate and antibacterial strength of Aloe Vera?
E66	081-211-B1		PlantSci	F	Grace Li	A Natural Insulator: What is the effect of different plant types covering

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
						roofs on the temperature of the buildings?
E67	081-220-91		PlantSci	M	Alexander Thaik	The Effect of Different Additives and Carbon to Nitrogen Ratios on the Decomposition of Food Waste
E68	081-230-42	T	PlantSci	F/M	Sidra Xu & Russell Yang	A Novel Solution to Algal Blooms by Inhibiting Photosynthesis Using Polystyrene Balls
E69	081-240-11		PlantSci	M	Bowen Yin	Using Super Absorbent Polymers to Reduce Water Consumption in Plants
E72	081-250-D2	T	PlantSci	F	Pooja Gidwani & Riya Nilkant	The Effects of Unfiltered and Filtered Grey Water In Plants
E73	081-260-A1		PlantSci	F	Arohee Bhoja	An Investigation of the Effects of Super-Absorbent Polymers on the Germination rates of Seeds
E75	081-270-52	T	PlantSci	M	Jonathan Chao & Andrew Chang	What is the effect of GFuel and earthworms on the rate of plant growth
E76	081-290-F1		PlantSci	F	Tanvi Siddhaye	Does my plant need water?
E77	081-310-51		AnimalSci	M	Ajay Mallya	Effects of environmental toxins on hemoglobin production in Daphnia magna
E78	081-411-B2	T	BiocheMic	F	Hilari Fan & Elaine Zhai	Comparison of the Biodegradability of Plastics Made From Natural and Chemical Ingredients
E79	081-420-A1		BiocheMic	F	Ruchika Dixit	How Quorum Sensing and Media affect Bacterial Bioluminescence
E80	081-421-72	T	BiocheMic	M	Krishay Mukhija & Justin Zau	Effect of Different Remedies or Medications on Acne
E81	081-431-41		BiocheMic	M	Karan Gurazada	The Effect of Broccoli Sprout Extract on Ameliorating the Harmful Effects of UV Radiation on Saccharomyces Cerevisiae.
E85	081-440-12	T	BiocheMic	F	Anvitha Tummala & Pramiti Sankar	Comparing the inhibitory effects of homemade garlic extract versus store bought garlic extract on Streptococcus mutans
E86	081-441-H1		BiocheMic	M	John Kipp	The Effect of pH on the growth of Spirulina 'superfood' algae
E87	081-450-E2	T	BiocheMic	F	Santoshi Tirumala & Shalini Rohra	Results of Ways to Dry Your Hands
E88	081-451-D1		BiocheMic	M	Srikar Kolluru	Effects of Natural Antioxidants on Sodium Bicarbonate Deposits: Application for Amelioration of Atherosclerosis
E89	081-460-A2	T	BiocheMic	F	Ankita Kundu & Elizabeth Szeto	Finding the Most Effective Two-Step Filtration System to Remove Biological, Mineral, and Chemical Contaminants in Water
E90	081-461-91		BiocheMic	F	Anushka Sanyal	Developing a tool for studying Alzheimer's: A bacterial expression vector for the M3-M4 fragment of the nAChR alpha-7
E91	081-480-31		BiocheMic	F	Anuja Katukam	What is the effect of the number of apples present on the ripening speed of a banana?
E93	081-490-F2	T	BiocheMic	M	Shray Alag & Nikhil Gargeya	The Potential of Yard Waste in Comparison to Starch Crops for Efficient Biofuel Production.
E94	081-610-F1		MedHeaSci	F	Alekhya Vadlakonda	The Effect of Curcumin on INS-18: Implications for a Natural Treatment for Type 1 Diabetes
E95	081-640-31		MedHeaSci	F	Deepa Mahesh	Using machine learning to find associations between cardiovascular disease data and clinical information.
D95	081-730-G1		BiomedEng	M	Shivek Narang	Done with a Blink of the Eye: Using Brain Waves to Aid a Paralyzed Patient Communicate
D94	081-740-C1		BiomedEng	M	Samarth Girish	Watch Your Back: A Portable Device For Posture Detection
D93	081-770-H1		BiomedEng	F	Jenna Houle	The use of a polymer based active cuff for the treatment of edema in the lower extremities

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
D92	082-A10-11		Chemistry	F	Hannah Vogel	Common corrosion in metals
D91	082-A11-F2	T	Chemistry	F	Ayah Ramahi & Umayrah Syed	How Much Caffeine are you drinking?
D90	082-A12-E1		Chemistry	F	Emma Lu	Which type of french fries has the shortest shelf life?
D89	082-A20-E1		Chemistry	F	Aditi Hariharan	The Effect of Different Chemicals on the Time It Takes to Remove Graffiti
D88	082-A21-C1		Chemistry	F	Anushka Aritharan	What is the effect of different ingredients in skin moisturizers on the retention of moisture in the model human skin?
D87	082-A30-92	T	Chemistry	F	Vaishnavi Murari & Nilisha Baid	How Egg Substitutes Affect Baking
D86	082-A31-81		Chemistry	F	Eunice Ho	Candy Chromatography
D85	082-A41-41		Chemistry	F	Priyal Patel	Does temperature affect how much vitamin C is in different brands of orange juice?
D84	082-A50-21		Chemistry	F	Roma Ankolekar	What is the fastest way to bring the pH level of creek water to 7(neutral) by boiling or adding chlorine dioxide tablets
D81	082-A51-H1		Chemistry	M	Gokul Ramapriyan	Photoelectrochemical Cell for Water Splitting: A Novel Approach to Hydrogen Production
D80	082-A71-91		Chemistry	F	Japji Singh	Lacking Lactase: The Science Behind Lactose Intolerance
D79	082-A80-71		Chemistry	F	Anokhi Shah	Giving Fruit Waste a Second Chance: Using Dried Peels as a Binding Agent to Remove Toxic Metals from Contaminated Water
D78	082-A81-51		Chemistry	M	Mehrzad Gandhi	Antacid Potency
D76	082-A90-22	T	Chemistry	F	Mary Hemker & Jillian Silva	How Caffeinated is Your Coffee?
D75	082-A91-11		Chemistry	M	Samarth Jayadev	How Separating Oxygen From Water Using Diffusion Could Help an Infinite Breathing Time Under Water
D74	082-B11-81		CheEnvEng	M	Syed Hassan	The Effect of Corrosion on Metals
D73	082-B20-61		CheEnvEng	M	Vivek Veluvali	A novel method of forward osmosis involving iron nanoparticles
D72	082-B30-21		CheEnvEng	M	Kaushik Tota	Portable Water Bottle Which Utilizes a Ceramic Filter to Provide Clean Water to Areas with a Polluted Water Supply
D69	082-B31-G2	T	CheEnvEng	F	Sahana Rajmohan & Anika Bhatia & Sruthi Ramesh Kumar	Go Grey - Laundry to Landscape Irrigation System
D67	082-B40-E2	T	CheEnvEng	F	Annamma Vazhaeparambil & Aditi Vinod	A Method of Efficiently Purifying Gray Water in Homes to Use in Neighborhood Backyards
D66	082-B41-C2	T	CheEnvEng	F	Bhaswati Das Gupta & Lekhana Vankayala	Water Filter : An Effective, Cost-Efficient Way to make Ocean water Usable for Humans
D65	082-B50-B1		CheEnvEng	M	Zaid Yousef	From Waste to Water Filter
D64	082-B51-91		CheEnvEng	F	Arushi Patel	Code Green: Measuring Chlorophyll a levels in the Delta
D63	082-B60-71		CheEnvEng	M	Abdullah Naveed	Water to Fuel to Water: The Fuel Cycle of the Future
D61	082-B70-22	T	CheEnvEng	F	Christy Vu & Alexa Mae Miranda	Al-go Away!: Filtering the Proliferation of High Biomass Algae
D60	082-B80-G1		CheEnvEng	F	Navroop Saini	Domestic Grey-water treatment and recycle system
C60	082-B90-C1		CheEnvEng	F	Saili Karkare	Vacuum Desalination
C61	082-C10-21		EarEnvSci	M	William Chang	Global Warming Affects Buoyancy?
C62	082-C11-G2	T	EarEnvSci	M	Gabriel Ticau & Zeiler Randall-Reed	What Is The Best Way To Condense Water From Air?
C63	082-C20-F1		EarEnvSci	M	Mihir Heda	Eco-Friendly Calculator
C64	082-C21-D1		EarEnvSci	F	Eshani Arumalla	What conditions cause algae to produce the most oil ?
C65	082-C30-B1		EarEnvSci	M	Zahreef Kazi	Help Earth live on! Cleaning Oil Spills with Natural Substances
C66	082-C31-91		EarEnvSci	M	Prithu Kachare	Effective Ways Of Capturing CO2 in Water

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
C67	082-C40-71		EarEnvSci	F	Misbah Syed	Catch the Wave! Energy obtained by harnessing ocean wave power.
C68	082-C50-31		EarEnvSci	F	Cailin Le	Reusing Superhydrophobic Plants by Cleaning With Natural Surfactants in Oil Spill Clean-up
C69	082-C60-F2	T	EarEnvSci	M	Prathik Kakarlamudi & Aditya Udgaonkar	Real-time Air Pollution and Landfill Odor Data Analysis
C72	082-C70-C1		EarEnvSci	M	Pranjal Agrawal	Does the Amount of Precipitation Have Any Effect on the Seismic Activity in California?
C74	082-C90-32	T	EarEnvSci	F	Audrey Chang & Navya Singhai	The Mumbo Jumbo of Gumbo, and Other Types of Soils: The Accomplishments of a Soybean
C75	082-D10-B1		PhysAstr	M	Turner Thompson	Backspin on a basketball: Too much of a good thing?
C76	082-D11-82	T	PhysAstr	M	Cesar Cruz & Keith Ly	Does the material of an object affect its velocity?
C77	082-D20-62	T	PhysAstr	M	Arya Maheshwari & James Pflaging	Analyzing Trajectories: The Aerodynamics of Different Badminton Shuttlecocks
C78	082-D21-51		PhysAstr	F	Jaclyn Mar	What is the effect of the impact of different ball types on the brain?
C79	082-D30-31		PhysAstr	F	Malak Ashmawi	Blood Splattering Patterns: Effect of Height, Viscosity, and Surface on the Splatter of simulated Blood
C80	082-D40-G1		PhysAstr	M	Samuel Li	Fortresses Destroyer: Effect of Trebuchet's Arm Length and Counterweight Mass on Projectile Distance
C84	082-D50-B2	T	PhysAstr	F _M	Elizabeth Chen & Ann Zhu & Kyle Fang	Solar Cell Response to Incident Frequencies
C86	082-D60-72	T	PhysAstr	F _M	Minhthi Ngyuen & Ji Soo Kim & Gene Castillejo	The Boiling Point Of Water as a Function of Vapor Pressure
C87	082-D70-41		PhysAstr	F	Kate Jackson	Sustainable Play: Comparing the Safety of Renewable Alternatives to Commercial Playground Surface Materials
C88	082-D80-H1		PhysAstr	F	Masha Korolik	Refraction of Light: Its Dependence on the Density and Nature of a Solution
C89	082-D90-D1		PhysAstr	M	Akhilesh Balasingam	Manhattan Fluidics: On Optimizing Network Geometry by Circuit Analogy for Low-cost 3D-Printed Lab-on-a-Chip Devices
C90	082-E10-31		ElecEng	M	Abhinav Nallapa	Fingerprint SmartLock
C91	082-E11-11		ElecEng	M	Vikram Iyer	A Portable Audio Pointer for Difficult-to-Read Print
C92	082-E12-G1		ElecEng	F	Shreya Manivel	A Breath of Fresh Air! : Pivotal role of IOT in Air Quality Monitoring
C93	082-E20-G1		ElecEng	M	Srinath Somasundaram	A Novel Design and Evaluation of a Temperature Controlled Smart Sock with Fuzzy Logic Control
C94	082-E21-E1		ElecEng	M	Arnav Garg	Rescuebot, in search for survivors!
C95	082-E30-C1		ElecEng	M	Mithil Chakraborty	An Integrated System to Communicate Dangers of Elevated Blood Pressure to Receive Medical Care Using Pulse Sensor
B94	082-E31-92	T	ElecEng	M	Bruce Nguyen & Daniel Nguyen	Arduino Controlled Youtube Infinity Mirror Play Button
B93	082-E40-81		ElecEng	M	Alexander Grindrod	The FitShock
B92	082-E41-61		ElecEng	M	Akash Dasgupta	Electrical Fire Prevention Device
B91	082-E50-41		ElecEng	F	Devangana Chatterjee	Wearables & Their Innovative Applications in Healthcare, Physical Activity Monitoring and Rehabilitation
B90	082-E51-21		ElecEng	F	Molly Waddington	Robo Garden
B89	082-E60-H1		ElecEng	F	Katelyn Wong	Making a Solar Hotdog Cooker
B88	082-E61-F1		ElecEng	M	Ronith Ganjigunta	Raspberry Pi Garage Door Opener
B87	082-E70-D1		ElecEng	M	Bharat Kathi	Optimal Routing Protocols for Multiple Link Failures
B86	082-E71-A2	T	ElecEng	M	Amar Singh & Praneel Singla	The Information Pathways of the Brain

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
B85	082-E80-82	T	ElecEng	M	Nikhil Chandra & Parthiv Seetharaman	lot Water Leak Alarm: Delivers an email to a connected user immediately upon detection of a water leak
B84	082-E81-71		ElecEng	F	Nithya Yeluri	The Darkness Behind Blue Light
B81	082-E90-51		ElecEng	M	Andrew Chiang	Manipulation of Ultrasonic Force Field
B80	082-E91-31		ElecEng	F	Supriya Lall	Gunshot Detector
B79	082-F10-C1		MechEng	F	Elise Pham	Bionic Hand
B78	082-F11-A1		MechEng	F	Sydney Merritt	MagLev Car
B77	082-F20-81		MechEng	M	Srivishnu Pyda	Developing Bio-Composite Materials: Carbon Fiber Reinforced Chitin Matrix
B76	082-F21-61		MechEng	M	Jona Turagavou	Cozy Pack
B74	082-F31-12	T	MechEng	M	Pranav Gunda Naga & Mohammed Puthenveedu	Smart Pill Dispenser
B73	082-F40-G2	T	MechEng	M	Kushal Shah & Paul Kratter	A New Reach: Grasp and Lift Based on Muscle Contraction Detection
B72	082-F41-F1		MechEng	F	Kelly Galicia	VibraGloves
B69	082-F50-C2	T	MechEng	F	Sakshi Kumar & Nithila Poongovan	Poop Patrol: Simplifying the Interaction Between the Visually Impaired and Their Service Dogs
B68	082-F51-B1		MechEng	F	Sriya Sridhar	Sunny-Side Up!
B67	082-F60-91		MechEng	F	Julia Lovato	Pain Reliever
B66	082-F61-71		MechEng	M	Desmond Miranda	A Serrated Cutting Edge!- The Effect Of Blade Designs on Electricity produced by a Wind Turbine
B64	082-F70-42	T	MechEng	F	Athena Vo & Joanna Ou & Vanessa Trieu	The Cut and Draw Ruler
B62	082-F71-22	T	MechEng	M	Anish Anumandla & Adi Srivastava & Anh-Khoi Pham	Air Powered Car
B61	082-F80-11		MechEng	F	Diana Labonville	RCBot - The Radio Controlled Drawing Robot
A60	082-F81-F2	T	MechEng	F	Sara Yen & Sophia Horng	Making DIY Templates for Tote Bags Out of Old Clothing
A61	082-F90-E1		MechEng	F	Caitlin Gorin	Filtering Electromagnetic Fields on Cellular Devices
A62	082-G10-41		Math	M	Christopher Raney	How to Curve a Hockey Puck
A63	082-G30-D1		Math	F	Maryam Kazi	Math Checksum - An easy way for verification of arithmetic problems
A64	082-H10-D1		SoftEng	M	Josh Sanyal	The Homework Machine: Helps students work smarter, not harder, and collaborate with peers, teachers, and parents
A65	082-H11-B1		SoftEng	F	Aditi Bharti	KnowYourAntibiotic: A Mobile App To Fight Antibiotic Resistance
A67	082-H12-82	T	SoftEng	M	Talin Ray & Krish Praseeth & Manas Srivastava	The Design and Construction of a Fitness App to Encourage Children to Exercise
A68	082-H20-82	T	SoftEng	M	Andy Lee & Kishan Sood	Music Language Modelling: Software that Understands and Composes Music
A69	082-H21-71		SoftEng	M	Arvind Ramachandran	Where the Beep are you Going?
A72	082-H22-42	T	SoftEng	M	Casey Aslan & Aaron O'Brien	Vehicle to Vehicle Communication
A73	082-H30-51		SoftEng	M	Akshay Manglik	A mobile software application to educate citizens with accurate, up to date, and accessible political information
A74	082-H31-31		SoftEng	F	Riteka Murugesh	Baby Alert - Did You Miss Me?
A75	082-H32-11		SoftEng	M	Sean Do	Using face recognition software to help people with Alzheimer's disease distinguish loved ones from strangers
A76	082-H40-11		SoftEng	M	Neeraj Rattehalli	An lot Approach to a Smart Stove
A78	082-H41-F2	T	SoftEng	F	Kalyani Valiyaveettil & Siri Konanoor	FoodSmart: Know Your Food Better
A79	082-H42-E1		SoftEng	F	Sruthi Mikkilineni	SafeNet: Protect children from the dangers of Internet using Convolutional Neural Networks

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
A80	082-H50-E1		SoftEng	F	Nishita Belur	A Tele-Health Smartphone App to Virtually Connect Rural Patients in Underdeveloped Countries to Doctors and Hospitals
A81	082-H51-C1		SoftEng	F	Janani Sriram	Save Our Water: SOWing the Seeds of Water Conservation
A84	082-H52-A1		SoftEng	M	Akshar Sarvesh	Neural Networks for Heart Disease Classification
A85	082-H60-A1		SoftEng	M	Siddharth Sharma	Early Detection of Speech and Language related Learning Disabilities using Natural Language Processing and Deep Learning
A86	082-H61-81		SoftEng	M	Rohan Zamvar	Footsteps
A87	082-H62-61		SoftEng	F	Khushi Parikh	Creating a Computer Algorithm to Accurately Predict the Next Season's Influenza Virus Strain
A88	082-H70-52	T	SoftEng	F	Avishi Agastwar & Arushi Agastwar	An Innovative Aide to Help Children with Autism Spectrum Disorder Better Confront Daily Struggles Using Visual Learning
A89	082-H71-41		SoftEng	M	Aadit Trivedi	Drive Smart, Drive Safe: Designing an Anti-Collision Vehicular Network
A90	082-H72-21		SoftEng	F	Saloni Shah	A Novel Examination of the Effects of Network Topology on Shortest Path Computation Time
A91	082-H80-21		SoftEng	F	Vibha Raju	Analysis of probe attacks on residential Internet connection and finding their geolocation distribution
A92	082-H81-H1		SoftEng	F	Shachi Prasad	Mobile Medicine Tracker
A93	082-H90-F1		SoftEng	F	Ashwini Suriyaprakash	SCoolPost: A Web App for School Community
A94	082-H91-D1		SoftEng	F	Anjali Singh	Formality Analysis of Written Text Using Machine Learning
Y10	091-110-61		BehavSci	M	Hrushiksha Athreya	Does changing one's perception of their body temperature effect their perception of time?
Y11	091-120-21		BehavSci	M	Rohit Tanikella	Relationship Between Self-Efficacy and Cognitive Anxiety on Cognitive Performance
Y12	091-130-F1		BehavSci	M	Alex Richardson	Taking notes by hand vs typing and its affects on learning
Y13	091-140-B1		BehavSci	F	Alicia Chen	The Effect of Sleep Deprivation on Reaction Time and Focus/Concentration
Y24	091-150-71		BehavSci	F	Swapna Panuganty	Effect of different colors on the behavior of bees.
Y25	091-160-31		BehavSci	M	Raj Janardhan	The Effect of Music on Brain Competency
Y26	091-170-F2	T	BehavSci	M	Atharva Shah & Krish Patel	Effect of Being Observed on Accuracy and Speed at Which a Task is Completed
Y28	091-180-B2	T	BehavSci	M	Vittal Thirumalai & Arnav Gattani	Water Usage Meter
Y29	091-210-E2	T	PlantSci	F	Aarzu Gupta & Maya Shukla	The Efficacy of Combinations of Plant Based Natural Antibiotics in Aiding the Fight Against Superbugs
Y30	091-220-A2	T	PlantSci	F	Jacqueline Yang & Prerana Acharyya	Antimicrobial Properties of Various Plant Components
Y40	091-230-62	T	PlantSci	F _M	Sana Pandey & Alexander Shing & Anthony Shing	Effect of Fungicides on Mycorrhizal Fungi and Plants
Y41	091-240-31		PlantSci	F	Zara Shariff	The Effect of Diluted Bleach on Ice Plants vs. Echeveria
Y43	091-250-F2	T	PlantSci	F	Annette Mino & Morgan Irwin	The Effect of Acid Rain on Plant's Pigmentation
Y44	091-260-C1		PlantSci	M	Jaeson Pyeon	How does the type of greywater affect the mass of Pisum sativum utilizing carbon filters?
Y45	091-270-72	T	PlantSci	M	Yingeng Liu & Tianyi Zhang	How does coal smoke affect the growth of barley plants?
Y52	091-280-32	T	PlantSci	F	Rithu Paramesh & Amirtha Maria	The Effect of Various Vitamins on the Amount of Algal Oil Produced
Y54	091-290-G2	T	PlantSci	F _M	Catherinez Zhao & Jeffrey Fung	Variations in Salinity and Growth Effects of the Marine Microalga Nannochloropsis
Y55	091-310-71		AnimalSci	F	Purnima Venkat	Investigating the effect of ocean acidification on Krill.
Y56	091-320-31		AnimalSci	F	Stephanie Chang	The impacts of sublethal exposure to clothianidin on multiple honeybee genotypes

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
P57	091-330-F2	T	AnimalSci	M	Brendan Su & Brandon Yan & Isaac Lo	Modeling Algorithms to Simulate Individual and Colonial Ant Behavior
P56	091-410-G1		BiocheMic	M	Varun Kodur	The Effect of Acetic Vapor On Aspergillus Niger Growth On Allium Cepa L. Onion Slices
P55	091-411-E1		BiocheMic	F	Shloka Janapaty	The Effects of Pseudomonas Putida Bioremediation of Agricultural Runoff on Low-density Polyethylene Decomposition rates
P53	091-420-B2	T	BiocheMic	F	Naviya Kapadia & Anika Tiwari & Anya Gert	Survival of the Fittest: Measuring Different Organisms' Drive to Food
P52	091-421-A1		BiocheMic	F	Gurmehr Klair	The Effect of Sucralose on the Growth of Intestinal Flora
P51	091-422-81		BiocheMic	M	Tarun Chiruvolu	A Novel Point of Care Device Utilizing a Lateral Flow Immunoassay
P49	091-430-72	T	BiocheMic	F	Gloria Zhang & Alyssa Huang & Aditi Khanna	The Effect of Caffeine on the Potency of Metabolism-Enhancing Vitamin Supplements
P48	091-431-61		BiocheMic	F	Chaelee Park	The Effect of Herbal Extracts in Combination with Metformin in C. Elegans Subjected to a High Glucose Environment
P47	091-432-41		BiocheMic	M	Siddharth Marathe	The role of Vitamin C in the Catalase/Hydrogen Peroxide Enzymatic Kinetics as a potential cure for cancer
P46	091-440-32	T	BiocheMic	M	Rakesh Nori & Jeffrey Yang	Using a Selection of Air Pollutants to Test their Effect on Collagen Matrices and Synthesized Skin
P45	091-441-21		BiocheMic	F	Shrena Punj	The effect of pyrantel pamoate on the ASPM-1 gene during embryonic development of Caenorhabditis Elegans
P44	091-451-F1		BiocheMic	F	Kalie Ching	Hand Moisturizer Bacteria Growth
P42	091-470-91		BiocheMic	M	Kalyan Narayanan	The Effect of Varying Levels of Alpha-Antitrypsin on Glutamic Protease Efficacy
P39	091-471-62	T	BiocheMic	F _M	Maanvi Thawani & William Zong	What is the effect of glucose, milk, and antacids on the survival rate L. Acidophilus in simulated gastric acid?
P38	091-480-51		BiocheMic	F	Athena Fung	Sodium Chloride: An Excitotoxin Triggering Neurodegeneration Through An Increased Na ⁺ /Ca ²⁺ Influx Into Neuron
P36	091-481-22	T	BiocheMic	F	Trisha Sengupta & Ishanee Mitra	The Effect of Different Probiotics on the Growth of Baker's Yeast
P35	091-490-11		BiocheMic	F	Nikitha Kalahasti	The effect of colored LED light on baker's yeast (Saccharomyces cerevisiae) reproduction
P34	091-491-G1		BiocheMic	F	Katherine Nasif	Accelerating Hydrocarbon Degradation in Alcanivorax borkumensis through the Use of Diffused Oxygen in Its Environment
P33	091-510-72	T	BioInfo	F	Allison Jia & Jasmine Wiese	Using EEG to Analyze Common High School Distractions While Studying
P32	091-520-41		BioInfo	F	Shruti Sridhar	Bridging Vectorcardiography and Computational Genetics: A Novel Approach to Noninvasive Early Detection of Heart Disease
P31	091-530-H1		BioInfo	M	Chinmay Lalgudi	Investigating methylation to explain gene expression patterns between Glioblastoma and Alzheimer's Disease
P30	091-540-D1		BioInfo	M	Aditya Behal	A Novel Investigation of MLH1 Gene Missense Mutations via the Analysis of MLH1 Protein's Primary and Tertiary Structures
P29	091-550-91		BioInfo	F	Sriya Jonnakuti	The Patterns of Exon Gene Mutations in Key Diseases in Specific Organs
P28	091-560-51		BioInfo	F	Shevali Kadakia	Relationship of Genes and Chronic Pain
P27	091-570-11		BioInfo	F	Anjali Ravella	What is the effect of TP53 gene mutations on various types of cancers?
P26	091-610-H1		MedHeaSci	F	Ashley Yeh	The Effects of NAD ⁺ on a Drosophila Melanogaster Model of Cognitive Decline.
P23	091-630-82	T	MedHeaSci	M	Grant Miner & Mihir Sharma	Hand Sanitizers: What chemicals actually contribute to the eradication of germs?

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
P22	091-640-51		MedHeaSci	M	Shyl Lamba	What is the effect of caffeine on streptococcus?
P21	091-660-E1		MedHeaSci	M	Yash Shroff	Efficacy of Flossing and Brushing in Reducing Plaque and Gingival Inflammation
P20	091-670-A1		MedHeaSci	F	Audrey Cui	The Relationship between Resting Cardiac Vagal Tone and Auditory Cognitive Control
P19	091-680-61		MedHeaSci	F	Divya Nair	The Effect of Heat Treatment on the Porosity and Thickness of Hair
P18	091-710-91		BiomedEng	F	Harshita Saha	Dissolving Blood Clots with vibrations in localized areas for people diagnosed with thrombosis
P17	091-720-51		BiomedEng	M	Ashvin Irrinki	Improving the Human Gait for One-Legged Amputees with a Synergetic Prosthesis
P16	091-730-11		BiomedEng	M	Arnav Joshi	A novel system for detecting COPD, asthma, and other obstructive lung diseases early in low-resource environments
P15	091-740-E1		BiomedEng	F	Rashi Ranjan	SmartSplint: Median Nerve Mobility Tracking and Alert with a Wearable IMU Device to Prevent Carpal Tunnel Syndrome
P14	091-760-61		BiomedEng	M	Raghav Ganesh	Developing a novel, accurate, and rapid machine learning based cell classification algorithm to diagnose diseases
P13	091-770-12	T	BiomedEng	F	Janvi Shah & Minjeong Kim	Diagnosing Heart, Lung, Blood Disorders Using Machine Learning Models
P12	091-780-F1		BiomedEng	F	Anusha Ghosh	Automated Treatment of Type 2 Diabetes using Closed Loop Glucose Monitoring
P11	092-A10-31		Chemistry	F	Kreena Parikh	The effect of calcium in strengthening the membrane of an edible sodium alginate water bottle
P10	092-A20-G1		Chemistry	F	Shannon Miranda	An Effective Flame Resistant Household Paint
N11	092-B10-B2	T	CheEnvEng	F	Eileen Li & Emily Liu	Addressing the Global Landfill Problem: A Novel Automatic Waste Sorting Algorithm Based on Machine Learning Methods
N12	092-B30-41		CheEnvEng	F	Mahi Kolla	Distilling and Refining the PARC Hydrodynamic Separator
N14	092-B50-C2	T	CheEnvEng	F	Natalie Semersky & Kareena Hargunani	The Design and Construction of a Produce Battery to Charge a Phone for People Who Do Not Have Access to a Power Outlet.
N15	092-B60-91		CheEnvEng	M	Ashish Rao	Osmotic Pressure and Energy Generation
N18	092-B80-H2	T	CheEnvEng	M	Rohan Pujare & Adithya Shanker	The Design and construction of a Microbial Fuel Cell to provide people in need of a clean energy source to make efficient
N19	092-B90-E1		CheEnvEng	F	Vedha Santhosh	The Effect of Using Biodegradable Coagulants on Domestic Wastewater Treatment to Promote Water Conservation
N20	092-C10-41		EarEnvSci	M	Richard Hu	The Impact of Solar Plants on Microclimate
N21	092-C20-H1		EarEnvSci	M	Sachin Shah	Testing the Water Cleaning Abilities of Moringa Oleifera
N22	092-C30-D1		EarEnvSci	F	Triya Roy	The affect concentrations of pollutants and amount of food source on Daphnia's sensitivity to toxins.
N23	092-C40-91		EarEnvSci	F	Sanoja Kikkeri	Carbon Sequestration : The Effect of Iron Fertilization of Carbon Fixation by Phytoplankton
N27	092-C50-42	T	EarEnvSci	F	Carolyn Lu & Maddie Huynh & Michelle Kwan	Effects of Runoff Water on Aquatic Plants
N28	092-C60-11		EarEnvSci	M	Srinivas Balagopal	Amending desert soil to reverse desertification
N29	092-C70-E1		EarEnvSci	F	Kami Richardson	Ocean Rx: Reducing Pharmaceutical Water Pollution. Utilizing organic materials as a novel alternative to nanoparticles.
N30	092-C80-A1		EarEnvSci	F	Mia Fong	If Radon Exists in Santa Cruz Mountain Well Water, How Much Radon Will Be Present at the House Tap

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
N31	092-C90-61		EarEnvSci	F	Anita Sagar	What's In Our Water?
N32	092-E10-51		ElecEng	M	William Xu	How does the humidity in the soil affect the amount of energy produced by the bacteria in the Microbial Fuel Cell?
N33	092-E20-11		ElecEng	F	Michelle Zhu	A novel, inexpensive, portable, medication and vaccine refrigeration device for use in developing countries
N34	092-E30-D2	T	ElecEng	M	Arjun Akkirjau & Vishnu Jaisim	Smart AI Home Use Robot
N35	092-E40-A1		ElecEng	F	Alisha Jayamohan	Enabling Ease And Safety For Deaf Drivers Via An Alerting Device That Recognizes Road Sounds
N37	092-E50-52	T	ElecEng	F	Chap-Lum Lau & Ashley Song	The design and construction of glasses for travelers to read foreign languages
N38	092-E60-12	T	ElecEng	M	Siddarth Ramkrishnan & Jayden Sanchez	Medication Memorization
N39	092-E70-F1		ElecEng	F	Simrithaa Karunakaran	Safety Step - A Novel Device Using IoT to Provide Safe Navigation for the Visually Impaired
N42	092-F10-E1		MechEng	M	Bogdan Kovtun	Utilizing Vortex Generating Perforations on Fixed-Wing Aircraft for Improving High Angle-of-Attack Performance
N43	092-F11-C1		MechEng	F	Isabel Sperandio	A New Solar Panel Design: Producing Electricity Day and Night Using Photovoltaic, Seebeck, and Thermal Elements
N44	092-F21-81		MechEng	M	Hawk Azordegan	An Easily Adjustable Ramp for the Physically Disabled
N45	092-F30-52	T	MechEng	M	Shinda Huang & William Huang	The Design and Construction of a Delivery Drone for Delivery Services to Deliver Their Sales and/or Belongings
N46	092-F31-41		MechEng	M	Nathan Ng	Morphing Nuts
N48	092-F40-12	T	MechEng	M	Rithwik Kerur & Andrew Wang	The design and construction of a water desalinator for anyone living by sea water to desalinate water cheaply
N49	092-F41-H1		MechEng	M	Nicholas Rumley	Heat-Sensing Rescue Robot
N50	092-F50-E2	T	MechEng	M	Timothy Liu & Mark Xin	The design and construction of a pillow that will help transportation passengers feel comfortable.
N51	092-F51-D1		MechEng	F	Emma Mustovic	Weight For Me
N52	092-F60-A2	T	MechEng	M	Shree Phadke & Sameer Chowdhury	The design and construction of a bike pedal charger for bikers to charge their phones.
N53	092-F61-91		MechEng	M	Quang-Dan Tran	Magnetic Shock Absorbers for Machines and Vehicles
N54	092-F70-71		MechEng	M	Ansel Austin	3D Printable Shock-Absorbing Surfaces: Comparative Testing of Various Auxetic Designs
N55	092-F80-31		MechEng	F	Shilpa Rao	Solving the Issue of Lines and Long Waits
N56	092-F90-G1		MechEng	M	Jahan Razavi	A Ground Topography Detection System for the Blind
N57	092-G10-61		Math	F	Cynthia Chen	Fighting Malnutrition: Automated Optimization of Nutrition Using Novel n-Dimensional Linear Programming Models.
M56	092-G20-12	T	Math	F	Anne Willner & Isabel Willner	Predicting Futures: The Accuracy of Markov Chains Predicting Stock Market Changes
M55	092-G30-F1		Math	M	Rushil Saha	A Novel Approach to Accurately Modeling the Disease Dynamics of Ebola using the Discrete Time Markov Chain
M54	092-G40-A2	T	Math	M	Suhas Prasad & Raj Palleti	What Factors Determine an Eulerian Polygon? A Computer-Inspired Analysis
M53	092-H10-F1		SoftEng	M	Joshua Valluru	Deep learning to predict Socioeconomic Sentiments through Social Media
M52	092-H12-B1		SoftEng	F	Letitia Aloysius	Remote Heat Alert System
M51	092-H20-B1		SoftEng	M	Mohana Nukala	Digital Grocery - an App to deliver/buy groceries, earn money as a

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
						deliverer or save time from shopping in store
M50	092-H21-91		SoftEng	F	Adishree Ghatare	Assessment of Cognitive Health and Assistance in Daily Life for the Elderly
M49	092-H22-62	T	SoftEng	M	Gaurav Bhatnagar & Arav Chheda	Watchdog: Using algorithms, FitBit technology, and Android devices to monitor user's biometrics and alert loved ones
M48	092-H30-71		SoftEng	M	Pranav Kumar	Flood Escape App: An App That Shows the Quickest Route to Safety During a Flood
M47	092-H31-51		SoftEng	M	Rushil Srivastava	Intrix: A novel approach to preventing cyber-bullying, and suicides by using Artificial Intelligence and Machine Learning
M46	092-H32-31		SoftEng	M	Tejaswi Vemulapati	Text Prediction Using Character-Level Recurrent Neural Network
M45	092-H40-31		SoftEng	M	Patrick Yu	Never Lost: An App to Keep You On Track
M44	092-H41-11		SoftEng	M	Siddharth Das	A Fast, Efficient Technique for Finding a Path through Multiple Destinations
M43	092-H50-G1		SoftEng	M	Matthew Jin	Drone Navigation with Computer Vision: CNN classifier, SIFT vs. SURF, and an effective landing pad finder
M42	092-H51-E1		SoftEng	F	Swati Goel	Truth on the Internet: A Web Extension and Back-End Search System to Discover Original Sources
M38	092-H60-B2	T	SoftEng	M	Thomas Rainow & Eric Fang	A Traffic Problem: Modeling Congestion on the Freeway
M37	092-H61-A1		SoftEng	M	Matthew Cho	Strategic Decision Making Utilizing Neural Networks Trained with Optimal Patterns from Reinforcement Learning
M36	092-H70-81		SoftEng	F	Shreya Sinha	Using Artificial Neural Networks to Identify Brain State
M35	092-H71-61		SoftEng	M	Siddharth Ganesan	The Speech Converter
M34	092-H80-32	T	SoftEng	M	Rehaan Ahmad & Brian Yang	Machine Learning Based Orchard Management Software to improve yield and productivity
M33	092-H81-21		SoftEng	F	Talia Syed	Generic Computer- Based Color Analysis of Chemical Reactions
M32	092-H90-G2	T	SoftEng	M	Anthony Zhu & Pulkit Singhal	A Machine Learning Algorithm that Detects Facial Expressions
M31	092-H91-F1		SoftEng	F	Medha Kini	Sensoriis
M30	093-410-11		BiocheMic	F	Lakshmi Ramesh	The Effect of Anti Inflammatory Drugs on E. Coli
P43	093-420-E1		BiocheMic	F	Smriti Vaidyanathan	The Effect of Alkaline Soaps on the Skin's Lipid Barrier
M29	093-610-21		MedHeaSci	F	Ananya Vadlakonda	The Effect of Antioxidants on Dopamine Stability: Exploring the Association Between Oxidative Stress and Dopamine Defici
M28	093-620-F1		MedHeaSci	M	Dylan Hwang	Seeing Half the World: An Eye Movement Study
M27	094-E10-71		ElecEng	M	Suhas Kotha	Piezoelectric Energy Harvester
M26	094-H10-H1		SoftEng	M	Bennett Liu	Fall/Drunk/Abnormal Motion Sensor
M23	094-H30-91		SoftEng	F	Maya Nayak	Self-Navigating Wheelchair
M22	094-H50-11		SoftEng	M	Milan Ganai	ShieldMe: Detect and Prevent Coordinated Cyber Attack on Android devices
M21	094-H60-E1		SoftEng	M	Shivam Verma	Constructing Speaker Verification Software that Allows Only Verified Users to Access a Secured Function
M20	101-110-91		BehavSci	F	Mariapaula Sunzeri Hernandez	Behavioral Modification using Red and Green LED Lights to Train Planarians with Positive Reinforcement
M19	101-120-51		BehavSci	M	Adarsh Pachori	Influence of a classical instrumental relative to a preferred stimulating instrumental on accuracy and speed in math
M18	101-130-11		BehavSci	F	Valerie Wu	How Do Variations in Educational Technique Affect the Learning Process of Mandarin Chinese in Elementary-Aged Students?

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
M16	101-140-D2	T	BehavSci	F	Shania Wang & Enya Lu & Ihita Mandal	How Different Music Genres Affect Short-Term Information Retention Amongst High Schoolers
M15	101-150-A1		BehavSci	M	Vishnu Palaniappan	The Link Between Sleep Quantity/Quality and Academic Performance on a High School Student
M13	101-210-H2	T	PlantSci	F	Rosheni Kandaswamy & Nhi Truong	Which of the factors that commonly affect photosynthesis have the greatest effect?
M12	101-220-E1		PlantSci	M	Philip Raj	The Effect of Compost Tea in Hydroponic Lettuce Growth
M10	101-230-92	T	PlantSci	F	Raka Acharya & Anjani Patibandla & Kirti Hargunani	The Effect of Anabaena inaequalis on Salvinia minima to Absorb Crude Oil in Freshwater
L10	101-240-61		PlantSci	F	Lila Walden	The Effect of Light Cycles on Capture Sensitivity of Venus Fly Traps
L12	101-250-12	T	PlantSci	F	Thao Le & Alena Do & Baotram Le	What is the effect of different wavelengths of light on the circadian rhythm of a flower?
L13	101-260-F1		PlantSci	F	Sowmya Kolluru	The Effect of Oxidative Stress on the Germination and Growth of Glycine max Plants
L14	101-310-A1		AnimalSci	F	Keerthi Pushparaj	The effects of dogs on autistic social interactions
L15	101-320-61		AnimalSci	F	Sanjana Borle	Using Daphnia Magna's Circulatory Behavior to Determine Safety of Flavor Enhancers
L16	101-330-12	T	AnimalSci	F	Roma Kidambi & Annika Bhanot	The Effect of Oxybenzone on the Viability of Zebrafish Embryos
L18	101-340-E2	T	AnimalSci	F	Jocelynn Leon & Yomaira Ramirez & Dalila Valenzuela	Examining the behavioral response of redwood ants (Formicarufa) in response to weather conditions
L19	101-370-22	T	AnimalSci	M	Johnson Nguyen & Derek Bui	The Effect of Yeast Concentration on Fruit Fly (Drosophila melanogaster) Attraction to Fruit
L21	101-380-F2	T	AnimalSci	M	Long Tran & Eric Pham	Determining The Effects of Varying Environmental Conditions on a Spider's Web
L22	101-411-G2	T	BiocheMic	F	Hazel Trinidad & Rebecca Dang	Evolving Bacteria that inhabits moist soil to thrive in dry conditions
L23	101-420-F1		BiocheMic	F	Anusha Kuppahally	Phytoplankton and the Impacts of Global Warming
L26	101-421-C2	T	BiocheMic	F	Angelynn Nguyen & Lily Huynh	Determining the effect of non-thermal microwave radiation on several foodborne pathogenic bacteria
L27	101-430-B1		BiocheMic	F	Taylor Lam	Determining the Concentration of Fertilizer Based Nitrogen in Water to Cause Overpopulation of Spirulina Major
L28	101-440-71		BiocheMic	F	Alycia Cary	Increasing Bacterial Halotolerance Using Methods of Natural Selection
L29	101-450-31		BiocheMic	M	Gautham Dasari	The Effect of the Therapeutic Reduction of Alpha-Synucleins on Neurodegeneration in Caenorhabditis Elegans
L30	101-460-G1		BiocheMic	M	Kevin Mathew	Studying the Effect of an Overexpressed DLK-1 Gene on Neurodegeneration During Exposure to Lead in C. elegans.
L31	101-490-41		BiocheMic	M	Vivek Kamarshi	Effects of Gut Microbiota on Drosophila Models of Parkinson's Disease
L32	101-510-B1		BiolInfo	M	Rory Morgan	What are the Effects of Climate Change on the Evolution of a Population of Simulated Organisms?
L34	101-511-82	T	BiolInfo	F	Vennela Chukka & Anusha Fatehpuria	Deep Learning Approach for Gland Segmentation in Cancerous Tissue Images
L35	101-520-71		BiolInfo	F	Natasha Maniar	An Improved Algorithm to Reduce False Positives of Arrhythmia Detection
L36	101-521-51		BiolInfo	F	Prerita Pandya	Effect of smoking on the expression of genes of the innate immune system in smokers versus non-smokers
L37	101-530-22	T	BiolInfo	F	Katherine Zhang & Katherine Tian	Seizure Prediction Using Deep Learning
L38	101-531-H2	T	BiolInfo	F _M	Aditi Menon & Rohit Menon	Diabetes in the United States in 21st Century: A Statistical Analysis of the Social, Behavioral and Ecological Factors

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
L39	101-540-G1		BioInfo	F	Shreya Dasari	Identifying Accurate Reference Genes for DNA Quantification in Cancer Research
L42	101-551-92	T	BioInfo	F/M	Jaydev Bhateja & Anjali Sadarangani	The Effects of Seasonal Sugar Consumption on Mitochondrial Ca ²⁺ Channels in Alzheimer's
L43	101-560-81		BioInfo	M	Pranav Atreya	Development of a Neural Network Based High Accuracy Object Detection System for Visually Impaired via Image Processing
L44	101-570-41		BioInfo	M	Tarun Amarnath	Using Machine Learning to Diagnose Schizophrenia Based on Multimodal Features from Brain MRI Scans
L45	101-580-H1		BioInfo	M	Kaushik Shivakumar	A Machine-Learning Approach to Correlate Environmental and Demographic Factors to Cancer Incidences Across US Counties
L46	101-590-D1		BioInfo	M	Jason Dong	Diagnosing Medical-Related Issues by Creating a Machine Learning Algorithm Utilizing Artificial Neural Networks
L47	101-610-31		MedHeaSci	F	Hira Ali	The Effect of Valeriana officinalis vs. L-Tyrosine on a Rotenone-Induced Drosophila Model for Parkinson's Disease
L48	101-620-G1		MedHeaSci	F	Anushka Tandon	Immune Adaption to a Track & Field Athlete's Active Lifestyle
L49	101-630-C1		MedHeaSci	M	Rishi Samarth	The Effect of Antibiotics on In vitro E. coli
L50	101-640-81		MedHeaSci	M	Aadithya Anumala	Overexpression of p63 and p73 with E2F1 and pcDNA6/TR in yeast model of Breast Cancer effect on mortality with cisplatin
L51	101-650-41		MedHeaSci	F	Rujuta Sathe	Using PQQ mitochondrial biogenesis as a therapeutic approach towards the treatment for Neurodegenerative Disease (ALS)
L52	101-660-G2	T	MedHeaSci	F/M	Mihir Hasan & Prashanthi Rayapati	The Effect of G. lucidum on the Lifespan of C. elegans modeling Duchenne Muscular Dystrophy
L53	101-670-D1		MedHeaSci	F	Sandhini Agarwal	Using Computer Technology to Accurately Assess and Diagnose Walking Balance Disorders
L54	101-680-82	T	MedHeaSci	M	Rishikesh Armstrong & Justin Nguyen	Project Tau: Mitigating Tau Protein Entanglement in White Matter by Inducing Deglycosylation and Dephosphorylation
L55	101-710-C1		BiomedEng	M	Cameron Jones	Intelligent Hearing Aids: Improving Speech Intelligibility and Separation in Noisy Environments through Deep Learning
L56	101-720-81		BiomedEng	M	Anish Gupta	Can the structural integrity of a plane be increased by mimicking a beehive?
L57	101-730-41		BiomedEng	M	Ryan Mei	A lightweight and soft exoskeletal robotic glove with shape memory alloy actuators to aid hand movement
K57	101-740-H1		BiomedEng	M	Sohil Pokharna	IoT enabled Neonatal Incubator for Monitoring and Storage of Vital Data for Predicting Short and Long Term Ailments
K56	101-760-91		BiomedEng	M	Rishab Yeddula	DenTap: Novel Application of Machine Learning Algorithms in Detection and Diagnosis of Oral Cancer
K55	101-770-51		BiomedEng	F	Ishani Narwankar	Vital VR: Using Virtual Reality To Promote A Calm Mindset
K54	102-A30-F1		Chemistry	M	Kevin Yang	Carbon Dioxide Sequestration by Acid Base Neutralization Reactions
K53	102-A40-B1		Chemistry	F	Elisa Horta	The Effect of the Combination of Sunscreens and Bug Repellent on their Efficacy
K52	102-A50-71		Chemistry	M	Rustam Gandhi	What is the effect of changing the catalyst plated on the anode on the efficiency of the water splitting reaction.
K50	102-A70-F2	T	Chemistry	F	Alicia Pang & Janelle Wang & Jennifer Tang	Thermodynamic Limitations in the High School Peanut Calorimetry Experiment
K49	102-B10-F1		CheEnvEng	M	Carl Rosenthal	A Gel-Based Combination of Pyriproxyfen and Hydroprene Insect

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
						Growth Regulators for the Control of <i>Blattella Germanica</i> .
K47	102-B20-A2	T	CheEnvEng	F	Anjali Sinha & Regina Ta	Automated Atomizer: Releasing Essential Oils to Control Varroa Mites
K46	102-B40-31		CheEnvEng	F	Sritharini (Esha) Radhakrishnan	Programming for the Efficient Restructuring of a Given Proximity
K45	102-B50-G1		CheEnvEng	M	Vishal Menon	Efficiency of Insulation Materials
K44	102-B60-B2	T	CheEnvEng	F/M	Aditya Shah & Sanjana Shah	Smart Wildfire Sensor: Automated Fuel Size Detection and Classification using Neural Networks for Prediction of Wildfire
K43	102-C10-71		EarEnvSci	F	Sophia Barwegen	The Effect of Wildfire on <i>Sequoiadendron giganteum</i> Growth and CO2 Flux
K42	102-C20-31		EarEnvSci	F	Visala Tallavarjula	Optimized Root Zone Water Delivery Comparable to a Sub-Surface System Using Low Cost Surface Drip Micro-Irrigation
K39	102-C30-G1		EarEnvSci	M	Neeraj Senthil	Salvage That Soil!: Investigating the Potential of Porcellio Scaber as a Biomarker to Monitor and Optimize Soil Health
K38	102-D10-G1		PhysAstr	M	Avi Patel	Confirming the Coevolution of Supermassive Black Holes & Dark Matter Halos by Analyzing the Structure of Galaxy Bulges
K36	102-D11-D2	T	PhysAstr	M	Daniel Ortiz & Alvin Nguyen & Orlando Mairena	That's Pretty Ice: Under what conditions does dry ice float?
K35	102-D30-72	T	PhysAstr	M	Nitish Reuben & Dan Tran	Resonant Frequency and How it is Affected by Changes in Density
K33	102-D40-32	T	PhysAstr	M	Eric Yang & Christian Chiong	Analyzing the likelihood and composition of planets orbiting Herbig Ae/Be stars using only low resolution instruments
K31	102-D50-G2	T	PhysAstr	F	Trisha Nguyen & Tien Ly & Desiree Khoo	The Emission of the Visible Light Spectrum
K30	102-D60-D1		PhysAstr	M	Vinayak Gajjewar	What is the effect of time on the development of lobate scarps caused by the cooling of Mercury's core?
K28	102-D70-82	T	PhysAstr	F	Shruthi Shyam & Alekhya Gurram & Sahithi Madireddy	The Effect of Mass and Shape of an Arrow on the Depth of Penetration into a Target
K27	102-D80-51		PhysAstr	M	Edward Ross	Got Moisture? Could surface treatments of uninsulated concrete slab foundations eliminate indoor moisture accumulation
K26	102-D90-H2	T	PhysAstr	F	Jenny Doan & Bhavandeep Kaur	Don't Get Blown Away: How will the velocity of the air blown above the panpipe affect the frequency of sound?
K23	102-E10-81		ElecEng	M	Shiven Gupta	IoT-Enabled Universal Remote for Entertainment Systems
K22	102-E20-32	T	ElecEng	M	Maxwell Wang & Sahil Somani	Creation of a Thermoelectric generated CPU Cooler for Desktop PCs to harness waste CPU heat
K21	102-E30-H1		ElecEng	F	Julie Park	Manipulating Magnets to Improve Generator Output
K20	102-E60-51		ElecEng	M	Ashwin Viswesvaran	The Making of a Maker: How I built my 3D Printer
K19	102-F20-D1		MechEng	M	Avinash Subramanian	Code-Cut: The affordable and accessible laser cutter!
K17	102-F40-42	T	MechEng	M	Elliot van Huijgevoort & Gokul Nair	Improving the Energy Efficiency of the Thermal Desalination Process by Implementing a Cogenerative Steam Turbine System
K15	102-F50-H2	T	MechEng	F	Tram Hoang & Tina Nguyen & Yenvy Nguyen	To Stop a Bullet
K14	102-F60-E1		MechEng	M	Ethan Ngo	Eyes For The Blind
K13	102-F70-A1		MechEng	M	Caleb Chang	Robotic Arm for the Disabled
K12	102-G10-91		Math	M	Kireeti Devarakonda	Developing a Method to Calculate WAR (Wins Above Replacement) for Cricket
K11	102-G30-11		Math	M	Vinayak Kumar	What is the effect of collegiate experience on a professional basketball player's performance?
K10	102-H10-11		SoftEng	F	Alice Martynova	Using Artificial Intelligence to Correct Grammar and Spelling Mistakes
J10	102-H11-G1		SoftEng	M	Matthew Park	Energy Conservation Through Timely Sleep Detection with Mobile Devices

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
J11	102-H12-D2	T	SoftEng	M	Shashank Mahesh & Siddharth Mahesh	Debate Summarizer: A New Keyword Analysis Algorithm for summarization by reduction
J12	102-H20-E1		SoftEng	M	Ashwin Reddy	An Experimentation Toolkit for Robotics Control and Manipulation Tasks using Deep Reinforcement Learning Algorithms
J13	102-H21-C1		SoftEng	M	Marc Bacvanski	Ok City: Unifying Mobile, Cloud, and AI Techniques in a Crowdsourcing Application for Smart Cities
J14	102-H22-92	T	SoftEng	F/M	Dean Jones & Sanjana Kantipudi	Virtual Child Link
J15	102-H30-A1		SoftEng	M	Johnny Wang	Blockchain Powered Certificate Verification Service
J16	102-H31-81		SoftEng	M	Varun Shenoy	Tracking Biomarkers from Classical Medical Monitors using Machine Learning for Seven Segment Digit Recognition
J17	102-H32-61		SoftEng	F	Shivani Deglurkar	A model that predicts and warns about blood glucose excursions before they occur
J19	102-H40-52	T	SoftEng	F/M	Daniela Obringer & Robert Daigle	Improved Methods of Teaching Mathematics to Hispanics
J20	102-H41-41		SoftEng	M	Kishore Srinivas	SpotFinder: Mobile Application Integrated with Real-time Database Technology to Find the Closest Parking Spot
J21	102-H50-21		SoftEng	F	Yusra Arub	Smart+Connected Doorbell with real-time coordinated Continuum of Care Information - A path to end all homelessness
J22	102-H51-H1		SoftEng	F	Fatima Kazi	Bring 'em home - Help reunite missing children with their loved ones
J23	102-H60-F1		SoftEng	M	Ethan Hsiao	Optimized gene drive mosquito injection locations with machine learning techniques
J26	102-H61-D1		SoftEng	M	Tejes Srivastava	Autonomous intersection management for driverless vehicle
J27	102-H70-B1		SoftEng	M	Ranesh Prasad	Android App for Disaster Management
J28	102-H71-91		SoftEng	M	Mokshith Voodarla	Codex AI: A Self-Learning, Self-Improving AI Which Can Write Code Based on User-Inputted Tasks/Descriptions
J29	102-H80-71		SoftEng	M	Kaushik Hariharan	Water Conservation System
X17	102-H81-51		SoftEng	M	Mihir Borkar	Finding Optimal Bus Routes Using Graphs
J30	102-H90-31		SoftEng	F	Aiushe Mishra	Hologram device program
J31	102-H91-H2	T	SoftEng	M	Robert Selwyn & Ayush Gupta	Optimal Stop Placement Strategies for Momentum Trades in Equities
J32	103-110-B1		BehavSci	F	Siddhi Shah	The Effect of Glutamine Synthetase 2, a Glial-Specific Gene, on Long-Term Memory Formation in Drosophila
J33	103-210-22	T	PlantSci	F	Jin Tuan & Nandini Sarkar	Effect of Climate Change on Species Distributions in a Desert Ecosystem
J34	103-220-G1		PlantSci	M	Amol Singh	The Effects of Varying Ca:Mg Concentrations on the Survival Threshold of A. eximia and A. formosa
J35	103-310-C1		AnimalSci	F	Srija Gadiraju	The effects of Curcumin (Curcuma longa) on Daphnia magna response to oxidative stress.
J36	103-410-41		BiocheMic	F	Ysabel Li	Effect of Active Herbicide Ingredients Glyphosate and Glufosinate on Neuronal Responses
J37	103-420-H1		BiocheMic	F	Nisha Shankar	The testing of stethoscopes to see if bacteria can survive and optimal cleaning methods
J38	103-440-91		BiocheMic	F	Isha Savant	Effects of Bilberry, Cranberry, and Grapeseed extracts on Escherichia coli and Staphylococcus saprophyticus
J42	103-510-C2	T	BioInfo	F/M	Kiran Rachamallu & Dana Lee	Flooding Vulnerability along the Brahmaputra River in Northeast India
J43	103-520-91		BioInfo	F	Nithya Attaluri	Combating Cervical Cancer: Investigating Mechanisms of Host

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
J44	103-530-51		BioInfo	M	Arian Rajee	Immune Evasion by Human Papillomaviruses
J45	103-610-42	T	MedHeaSci	M	Anjay Saklecha & Krish Kapadia	Pharma.AI: A Novel Approach to QSAR Using Gradient Boosting and DNNs in the Prediction of Drug-Target Interactions
J46	103-620-11		MedHeaSci	F	Ruhi Sayana	The Use of Salivary Proteins as Novel Biomarkers for Concussion
J47	103-710-E1		BiomedEng	M	Keval Shah	Exploitation of Cell Survival Mechanisms to Induce Apoptosis for High-Risk Acute Lymphoblastic Leukemia
J48	103-740-21		BiomedEng	M	Shivam Singhal	Smart Bio-Sensor Data Acquisition System
J49	103-750-F1		BiomedEng	M	Phillip Chau	Developing Different Sensors for Gas Metabolite Detection
J50	104-A10-81		Chemistry	M	Raymond Banke	A Novel Method for Quantitative IMU-Based Gait Analysis
J51	104-A20-41		Chemistry	M	Charles Huang	Identification of Potential Secondary Metabolites in Extracted Cyanobacteria
J52	104-C10-91		EarEnvSci	F	Alexandria Sochocki	Characterization of 2D Molybdenum Disulfide Crystal Growth For Nano-Optics And the Extension of Moore's Law
J53	104-D20-E1		PhysAstr	M	Abhijishyo Jana	Effectiveness of a Fabric as a Water Filter
J54	104-D30-A1		PhysAstr	F	Ananya Karthik	Using Biomimicry to Enhance Wind Turbine Efficiency
J55	104-D40-52	T	PhysAstr	M	Yatharth Chhabra & Ashwat Subbaraman	Observational Biases in Tests of Gamma Ray Attenuation
J56	104-F10-21		MechEng	M	Siddharth Jain	An Instrument to Examine the Maturity of Fruits for Consumption Purposes Using Chlorophyll Fluorescence
J57	104-F20-F1		MechEng	F	Anika Sanyal	Brain Impact Suppression - Building a Better Helmet
H57	111-110-B1		BehavSci	M	Shreyas Chandrashekar	An Inexpensive, Digital Frequency Elimination Device: To Help Autistics and Others with Hearing Sensitivities
H56	111-130-31		BehavSci	F	Kamya Venkatesan	The Effects of Age on Distracted Driving Reaction Times
H55	111-140-G1		BehavSci	F	Ujjaini Mukhopadhyay	Higher Authority's Effect on Decision Making
H53	111-150-B2	T	BehavSci	F	Haiman Wong & Lily Swenson	Mindset or Aptitude: What drives the learning ability of high school students?
H52	111-210-31		PlantSci	F	Anastasiya Grebin	The Effects of Genetically Modified Foods on Coleomegilla maculata
H51	111-220-G1		PlantSci	F	Isabel Jaffer	Common crop higher plant growth impairment from human pharmaceuticals present in surface water.
H50	111-240-72	T	PlantSci	F	Tiffany Huynh & Theresa Nguyen	Water Stress Effect on Competing C3 and C4 Plants
H49	111-250-41		PlantSci	F	Vivian Le	Magnetism and Plant Growth
H48	111-270-D1		PlantSci	M	Harrison Huynh	How do the different chemical components of fertilizer change the speed of plant growth?
H47	111-280-91		PlantSci	M	Thai Quach	What is the effect of water solute concentration and pressure on scallion growth?
H46	111-310-C1		AnimalSci	F	Daria Syskine	Can chloroplast survive outside plant cells and perform photosynthesis at human skin cell temperatures?
H45	111-311-A1		AnimalSci	F	Thao Pham	Non-social Butterflies: Effects of Social Learning on Flower Foraging in the nonsocial Cabbage Butterfly (Pieris rapae)
H44	111-320-81		AnimalSci	F	Tuong Tran	Adaptation and Changes in Reproduction of Artemia in Response to Changes in Water Salinity
H43	111-321-52	T	AnimalSci	M	Zayn Cochinwala & Anshul Ratnaparkhi	Modeling the Effects of Monosodium Glutamate on Geotaxis, Life Expectancy, Pulse Rate Using Drosophila melanogaster
H42	111-330-41		AnimalSci	F	Gwendolyn Erdosh	Nanosilver's Toxicity
						Anti-parasitic Effects of Milkweed Species on Monarch Butterflies

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
H39	111-331-21		AnimalSci	F	Gina Yang	Infected with Ophryocystis elektroscirrha
H38	111-340-H1		AnimalSci	F	Erin Kiuttu	Investigating Colony Collapse Disorder: Synergistic Effects of In-hive Miticides on the Health of Honeybees <i>A. mellifera</i>
H37	111-350-D1		AnimalSci	F	Priscilla Siow	Effects of Synthetic Turf Runoff and Surface Water on <i>Dugesia dorotocephala</i>
H36	111-360-91		AnimalSci	F	Lauren Santoro	Effects of Dietary Constraints on the Longevity of <i>Caenorhabditis elegans</i>
H35	111-380-11		AnimalSci	M	Vijay Bharadwaj	The Effects of Tatoo Ink on the Development of the Flesh Fly <i>Sarcophaga bullata</i>
H34	111-390-E1		AnimalSci	F	Joanna Lin	Analyzing the effects of polystyrene microplastics on ocean primary consumers and phytoplankton
H33	111-410-41		BiocheMic	M	Manav Shah	Altering the Circadian Rhythms of Cockroaches Based on Feeding
H32	111-420-H1		BiocheMic	F	Charlotta Lebedenko	Redefining Patient-Specific Tumor Neo-Antigen Detection: Using Bacterial Quorum Sensing as a Lung Cancer Biomarker
H31	111-430-D1		BiocheMic	M	Alexander Vu	Evaluating the effects of non-caloric artificial sweeteners on human gut microbiota to prevent glucose intolerance
H30	111-431-B1		BiocheMic	F	Cindy Nguyen	The Effect of Probiotic Bacteria on the Passage of Allergens through the Intestinal Epithelium
H29	111-432-91		BiocheMic	M	Ken Hinh	Competition between <i>E.coli</i> and <i>Bacillus subtilis</i> with the introduction of metals
H27	111-440-82	T	BiocheMic	F	Divya Empranthiri & Labonita Ghose	What is the effect of the guanine and cytosine content on DNA covalent bond thermal stability?
H26	111-441-62	T	BiocheMic	F _M	Samantha Lu & Khiem Nguyen	Blocking the Uptake of Mutated Superoxide Dismutase 1 into Spinal Neurons
H22	111-442-42	T	BiocheMic	M	Martin Nguyen & Darryl Cereno & Bradley Huynh	The effects of antioxidants on <i>Artemia</i> (brine shrimp)
H21	111-450-42	T	BiocheMic	F _M	Zachary Shah & Michelle Tang	The Feast of Yeast
H19	111-451-22	T	BiocheMic	F	Vicky Nguyen & Soniya Dhar	Hormonal Regulation of Hexosaminidase: Implications for Tay Sachs Disease
H18	111-460-H2	T	BiocheMic	F _M	Sophia Patterson & Amar Kothary	Instrumental sound frequencies as told by bacteria
H17	111-461-F2	T	BiocheMic	F	Roseann Phan & Vy Truong	Effects of Pharmacological Agents on the Nonamyloidogenic Processing of the Beta-amyloid Precursor Protein
H16	111-462-E1		BiocheMic	F	Stephanie Le	The Effect of UV Light on Different Strains of Bacteria
H15	111-470-E1		BiocheMic	M	Handong (Harry) Wang	Testing Antibiotic Resistance of <i>Staphylococcus Epidermidis</i>
H13	111-471-B2	T	BiocheMic	F	Anagha Thiagarajan & Nikita Patel & Ruby Lunde	Discovering The Effect Of Prebiotics On Aging In <i>C. elegans</i> With A Simulated Microbiome
H12	111-472-A1		BiocheMic	M	Duc Le	Optimal Range of Conditions for Artificial Bacterial Transformation
H11	111-481-81		BiocheMic	M	Santosh Sivakumar	Could Bacterial Bioluminescence Replace the Electric Light Bulb?
H10	111-482-61		BiocheMic	F	Brianna Rivera	Effect of fat on the growth of <i>E. Coli</i>
G11	111-491-32	T	BiocheMic	M	Karan Sharma & Loren Chang & Vikas Srinivasa	Effect of temperature on diffusion through the yeast membrane
G12	111-510-D1		BiolInfo	F	Magdalena Mendoza	Effect of different quantities of sodium hexametaphosphate on ampicillin resistance in <i>E coli</i>
G14	111-520-91		BiolInfo	F	Caitlin Huang	Comparative Analysis of Methods in Hair Evidence Examination
G15	111-521-71		BiolInfo	M	Adrian Chu	An Attribute and Instance Weighted Naive Bayes Algorithm that uses Medical Knowledge for Heart Disease Detection
G16	111-522-51		BiolInfo	M	Vinay Senthil	Use Natural Language Processing and Machine Learning to Analyze Linguistic Resonance among Socioeconomic Demographics
						A Three Dimensional Modeling and Real Time Data Analysis

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
G17	111-530-51		BioInfo	M	Faraz Murshed	Algorithm for Bronchoscopy Enhancement
G18	111-531-31		BioInfo	F	Mythri Ambatipudi	Modelling the Effect of Environmental Conditions on the Presence of West Nile Virus in California Using Machine Learning
G19	111-541-G1		BioInfo	M	Sameer Varma	Combating Neurovirulence of ZIKA and Flavivirus Epidemics Using In Silico Phylogenetic Analysis and RNAi Gene Silencing
G20	111-542-E1		BioInfo	F	Lan-Anh Tran	Of Fish and Men: Similarities and Differences in Genetic Sequences between Vertebrates
G21	111-550-E1		BioInfo	M	Min Hoo Lee	Modeling Antibiotic Resistance Transmission in Populations Under Realistic Environmental Stresses
G22	111-551-C1		BioInfo	F	Ishana Deb	Leveraging Deep Learning to Derive De Novo Epigenetic Mechanisms Accounting for Missing Heritability in Type II Diabetes
G23	111-552-A1		BioInfo	M	Brandy Nguyen	Why is the pruning of Purkinje cell and Climbing Fiber synapses in the Cerebellum, impaired in autistic children?
G27	111-560-92	T	BioInfo	F/M	Akhil Arun & Sahana Srinivasan	Drug Repurposing
G28	111-561-72	T	BioInfo	F	Geeta Shankar & Allison Yih	A Machine Learning Based Approach to Skin Lesion Segmentation using Superpixels
G30	111-570-52	T	BioInfo	F	Jacqueline Gao & Julia Huang & Ashley Jiang	A computer simulation to investigate the change of allele frequencies of Sickle Cell Disease based on biogeography
G31	111-580-21		BioInfo	F	Jacqueline He	An integrative genomics approach to identify genetic networks influenced by the Zika virus
G32	111-581-H1		BioInfo	F	Claire Zhang	Machine Learning Detection and Classification of Colorectal Polyps
G33	111-590-F1		BioInfo	F	Emily Chen	Artificial Neural Network-based Prediction of sgRNA Activity for Generating Knockouts with CRISPR/Cas9 Gene Editing
G34	111-591-C2	T	BioInfo	M	Sahas Dendukuri & Hari Senthilkumar	Analyzing medicinal relations between acetylcholine and cardiac muscarinic receptors
G35	111-610-51		MedHeaSci	F	Emma Brezoczky	A Novel Machine Learning Algorithm for the Detection of Myocardial Infarctions Using ECG Data
G36	111-620-11		MedHeaSci	F	Serena Yoo	A study of cadmium neurodegenerative effect on Caenorhabditis elegans in relation to Parkinson's disease.
G37	111-630-E1		MedHeaSci	F	Grace Qing	Investigating the Effects of Alcohol on the Neuro-Immune Axis through C. Elegans
G38	111-640-A1		MedHeaSci	F	Catherine Beaudin	The Effect of Nicotinic Acid on Alpha-synuclein Protein Aggregations and Movement in a C. Elegans Model of Parkinson's
G39	111-650-61		MedHeaSci	M	Huy Nguyen	Biocompatible Microdroplets: A Paradigm Shift in the Reversal of Atherosclerosis
G42	111-670-F1		MedHeaSci	M	Brian Nhieu	Second-hand smoking might be more harmful than direct smoking.
G43	111-680-B1		MedHeaSci	M	Sahith Narala	Shortcut to Salvation: Treating E-Coli Infection Using a Repurposed Drug
G45	111-710-D2	T	BiomedEng	F	Aditi Gnanasekar & Sydney Ty	Mutational differences in the genomes of Seneca Valley Virus and other Picornaviridae that allow entrance to lung cells
G46	111-711-C1		BiomedEng	M	Shree Mukilan Pari	Pumping Up Security: Using Encryption and 2 FA to Secure Connected Medical Devices
G47	111-720-A1		BiomedEng	F	Srinidhi Balaraman	Multi-Athlete Heart Rate Monitor
G48	111-721-81		BiomedEng	M	Advith Gopinath	A Novel Test to Detect Cortisol In Sweat to Enable Detection in a Wearable Device
						The Voice of Alzheimer's: Wearable Technology Coupled with Machine Learning to Track Alzheimer's Disease Progression

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
G49	111-740-21		BiomedEng	F	Ankita Kumar	Measurement of Glucose Concentration Using Optical Rotation
G50	111-760-A2	T	BiomedEng	F	Saumya Nimmagadda & Jessica Peng	Knee Brace with Sensor Based Controllers Approach to Prediction of ACL Tear
G52	111-780-22	T	BiomedEng	M	Kumaran Akilan & Sriharsha Guduguntla & Archishman Sravankumar	Rehabilitation of Episodic Memory of Alzheimer's Patients via BCI utilizing EEG signal processing & Sensory Substitution
G53	111-790-G1		BiomedEng	F	Catherine Huang	Adaptive glasses preventing myopia and correcting presbyopia
G54	112-A11-61		Chemistry	F	Jeanette Luu	The Effect of Smog on the Rate of Decomposition of Wood
G55	112-A20-32	T	Chemistry	F	Thao Ngoc Nguyen & Emily Lenh	Molecular Gastronomy: The Science of Spherification
G57	112-A21-12	T	Chemistry	M	Tian Chen & Frederick Nitta	Density Functional Theory Study of Fe, Co, Ni, and Pt Embedded Graphene
F57	112-A30-H1		Chemistry	M	Anh Tran	Determining the Role of Nickel on TiO2 in Photocatalytic Glucose Reforming
F56	112-A31-F1		Chemistry	F	Labanya Mukhopadhyay	Predicting the Efficiency of Chaotic Mixing of Granular Pharmaceutical Materials Using Image Processing
F55	112-A40-D1		Chemistry	F	Emily Py	What is the effect of makeup on different moisturizers, primers, and oils?
F54	112-A50-91		Chemistry	F	Nasrin Rohim	What is the effect of temperature on the brightness and duration of chemiluminescence?
F53	112-A60-51		Chemistry	F	Tiffany Ha	What is the effect on the level of fluorescence when riboflavin is reacted with different acids?
F52	112-A70-11		Chemistry	F	Chau Luu	What effect does the temperature during the roasting process have on the caffeine content in coffee beans?
F51	112-A90-A1		Chemistry	M	Anthony Pham	What are the effects of different acids on the conductivity, current, and voltage of a penny battery?
F50	112-B10-H1		CheEnvEng	M	Pranav Muthuraman	"Why So Salty?" An Energy Efficient Method for Desalination of Water Using Microbial Fuel Cells
F49	112-B11-F1		CheEnvEng	F	Kimberly Zhu	An Efficient Waste Segregation System through Computer Vision
F48	112-B20-D1		CheEnvEng	F	Cassandra Melax	Heavy Metal Remediation in Soil Through a Combination of Electroactive Bacteria, Microbial Fuel Cells, and L. Minor
F47	112-B21-B1		CheEnvEng	M	Niviru Wijayarathne	Water conserving irrigation apparatus for small and large scale horticulture
F46	112-B30-91		CheEnvEng	F	Olivia Briones	An Ecological Approach to Oil Spill Clean Up: Modifying Plant Fibers to Absorb Oil
F45	112-B31-62	T	CheEnvEng	F	Thisha Thiagarajan & Aakriti Singh	Filtering Lead From Water Using Reverse Osmosis
F44	112-B40-51		CheEnvEng	F	Paige Fronczak	A Study of Optimal Conditions for the Photochemical Degradation of Phenanthrene, a model Polycyclic Aromatic Hydrocarbon
F43	112-B60-D2	T	CheEnvEng	F/M	Kevin Tran & Victoria Doan	Elimination by Purification
F42	112-B70-A1		CheEnvEng	F	Kim Nguyen	The Effects of Metals, Cation Complexation, and Reduced Pressure on the Process of Solar Desalination
F39	112-B80-61		CheEnvEng	M	Cleon Doan	What is the effect of humidity on solar power?
F38	112-C10-91		EarEnvSci	F	Alyssa Ungerer	Copper Poisoning in Freshwater: The Effect of Copper on Zebrafish
F36	112-C30-H2	T	EarEnvSci	M	Ethan Jean & Johnson Ku	Water quality in Silicon Valley
F35	112-C40-E1		EarEnvSci	F	Sapna Desai	The Impact of Ocean Acidity on Shells
F34	112-C50-92	T	EarEnvSci	F	Yuhsin Huang & Rhee Kang	Degradation of Polyurethane depending on Aspergillus Niger Grown in Different Broths
F32	112-C60-52	T	EarEnvSci	M	Rishabh Rajesh & Jeffrey Huynh & Alvin Zou	Naturally Fire Retardant-How do Ashes Improve the Fire Retardant Properties of Balsa wood?

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
F31	112-C70-12	T	EarEnvSci	F	Kyra Semone & Love-Lei Balbas	You Can't Stop the Motion of the Ocean
F30	112-D10-11		PhysAstr	F	Sarah Cliff	Testing Trends of Work Functions in Metals
F29	112-D11-G1		PhysAstr	M	Benjamin Lau	Heat to Electricity
F27	112-D20-D2	T	PhysAstr	M	Vikram Miryala & Justin Hu	Degradation/Oxidation Susceptibility of Organic Photovoltaic Cells in Aqueous Solutions and Air
F26	112-D21-C1		PhysAstr	M	Edward Vertin	Distance to a Cepheid Variable Star
F23	112-D30-A1		PhysAstr	M	Benjamin Dinh	Effect of Solar Panel Inclination on Power Output
F22	112-D31-72	T	PhysAstr	M	Harumi Hokari & Jeswin Joshy	LaZer Light
F21	112-D40-61		PhysAstr	M	Michael Pham	Construction of a Relatively Low Cost Handmade Telescope System
F20	112-D41-32	T	PhysAstr	F _M	Elizabeth Huang & Dillon Le	The Kinematics of a Gun Shot Underwater
F19	112-D50-21		PhysAstr	F	Taylor Pawlik	How the shapes of parachutes affect terminal velocity
F17	112-D61-C2	T	PhysAstr	F	Marilyn Nguyen & Madison Li & Khiem Vu	How Temperature Affects the Strength of Magnets
F16	112-D70-B1		PhysAstr	M	Terry Nguyen	What is the effect of liquid viscosity and density on energy production?
F14	112-D71-82	T	PhysAstr	F _M	Pratyusha Macherla & Zubair Lakhia & Kathleen Nguyen	This Field Is Affecting That Flow!
F13	112-D80-71		PhysAstr	F	Theodora Worledge	The role of spontaneous symmetry breaking in the initial formation of ski moguls
F12	112-D90-31		PhysAstr	M	David Lipman	Algorithmic search of the Automated Planet Finder spectra to identify extraterrestrial laser signals
F11	112-E10-A1		ElecEng	M	Shomil Jain	ACE: Assistive Crosswalk Engagement through Dedicated Short-Range Communication (DSRC) between Vehicles and Pedestrians
E10	112-E11-72	T	ElecEng	M	Leighton Pu & Francis Indaheng	Electrochromic Film Strip Windshield
E11	112-E20-61		ElecEng	M	Daryan Qawami	Analog Computer Memory
E12	112-E30-21		ElecEng	M	Neeraj Aggarwal	Designing and Developing a Smart Mirror to Increase Productivity within the Internet of Things
E13	112-E40-F1		ElecEng	M	Jonathan Li	Fabricating a modified dye-sensitized solar cell (DSSC) using a novel fast-ion conduction electrolyte layer
E15	112-E50-A2	T	ElecEng	F _M	Alexis Thammasouk & Adley Wong & Callahan Boronkay	Compact Anti-Theft Alarm
E16	112-E60-62	T	ElecEng	M	Jinwoo Park & Daniel Binoy	Pencil Lead Conductivity
E17	112-E80-G1		ElecEng	F	Nikita Goyal	HappiNec
E18	112-E90-C1		ElecEng	M	Atul Raghunathan	Six Degree Positioning Based on Laser Plane Projection and Inertial Navigation.
E19	112-F10-21		MechEng	M	Kyle Ettinger	Automated targeting and firing of Multirotor Disabling Technology
E20	112-F11-H1		MechEng	M	Robert Huang	Numerical Simulation of a Rotational Detonation Engine using Ideal Axial Injection
E21	112-F20-F1		MechEng	M	Scott Bout	The Bi-Directional Flying Wing: A Radical New Design For Maximum Inflight Efficiency
E22	112-F30-B1		MechEng	M	Kent Van Belleghem	Using Nitinol as a Concussion Indicator in Football Helmets
E23	112-F31-91		MechEng	M	Mihir Arya	A novel approach to reducing the parasitic and induced drag on an airfoil by enhancing the movement of a wingtip.
E26	112-F40-62	T	MechEng	M	Andrei Nadir & Nguyen Dang	Laser-based Microscope
E28	112-F41-42	T	MechEng	M	Abhinav Nimbalkar & Ryan Miranda & Brian Lin	City Maintenance Drone: A Novel Method of Addressing Threat Detection and Air Pollution With Image Analysis and IOT
E30	112-F50-22	T	MechEng	F _M	Danning Liang & Jianan Wang	Spray Paint Can Nozzle that reduce the air flowing paint particles
E31	112-F51-11		MechEng	M	Quang-Long Tran	Using magnets to reduce vibration in machinery

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
E32	112-F60-F2	T	MechEng	F	Rachel Jacobson & Gillian Pereira	Tablet Stand for People With Disabilities
E34	112-F61-D2	T	MechEng	M	Vikram Shirsat & Vishnu Srinivasan & Michael Chen	Improvements on Existing Sound Based Echolocation Techniques
E35	112-F70-C1		MechEng	F	Pauline Tran	Analysis of Crack Formation in a Pseudo-Concrete Conglomerate Mixture
E36	112-F80-81		MechEng	F	Hoang-Truc Nguyen	On the move
E37	112-F90-32	T	MechEng	M	Darren Heck & Yuuki Okazaki	Water bottle flipping trebuchet
E39	112-G20-71		Math	F	Sohini Kar	Factorization of Recurrence Relations
E42	112-H10-31		SoftEng	M	Shaya Zarkesh	A Novel Approach to Semantic Parsing of Mathematical Word Problems with Neural Networks
E44	112-H12-F2	T	SoftEng	F	Abirami Patchaiyappan & Urmi Lalchandani	Creating an Audio Reality for the Visually Impaired
E45	112-H13-E1		SoftEng	M	Shadaj Laddad	Direct Control of Autonomous Mobile Robots via Deep Reinforcement Learning
E46	112-H20-G1		SoftEng	F	Karena Kong	Traffic Network Management: Novel Approach Using a Deep-Learning System Driven by Dynamic Data
E47	112-H21-E1		SoftEng	F	Nomita Chandra	Efficient Binary Search Technique for Tumor Isolation in MRI Data
E48	112-H22-C1		SoftEng	F	Michelle Li	Development and Efficacy Analysis of Machine Learning Algorithms Applied to the Diagnosis of Alzheimer's and Parkinson's
E49	112-H23-A1		SoftEng	M	Tejasvi Kothapalli	Analyzing Usage Patterns of Wi-Fi Enabled Devices Through Machine Learning to Reduce Household Energy Consumption
E50	112-H30-C1		SoftEng	F	Turan Nguyen	Password Security
E51	112-H31-A1		SoftEng	M	Arjun Subramonian	Voice Alert: A Secure Automated Voice-Based Emergency Contact System
E52	112-H32-81		SoftEng	F	Katherine Ho	On Convergence of PageRank Computations
E53	112-H33-52	T	SoftEng	M	Vikranth Srivatsa & Aubhro Sengupta	A Novel Approach to Detecting Vitamin Deficiency
E54	112-H40-81		SoftEng	F	Nikhita Shanker	One Size Fits All: A Novel Approach to Making Recommendations Using Collaborative Filtering
E56	112-H42-41		SoftEng	F	Samantha Au	Utilizing computer embedded vision to track human hand and interactively map acupressure points for self-treatment
E57	112-H43-21		SoftEng	M	Kris Satya	Prediction of Heart Attacks with a Neural Network Algorithm
D57	112-H50-32	T	SoftEng	F	Prachi Bhagavatha & Jasmine Ngo	Obstacle and Pavement Detection Computing Realtime Distance Using Optical Flow Algorithms for the Visually-Impaired
D56	112-H51-21		SoftEng	M	Mark Shacker	Motion Tracking and Homing Apparatus for Stationary Targets in Civil or Military Applications
D54	112-H52-G2	T	SoftEng	M	Alex Gao & Kevin Frans	Coordinated Multi-Agent Control Utilizing Deep Reinforcement Learning
D53	112-H53-F1		SoftEng	F	Isa Dash	Improving Prognosis of Melanoma with Bio-marker Imaging Through an SVM Algorithm
D52	112-H60-H1		SoftEng	M	Avik Jain	A Novel Machine Learning Approach to Continuous Identity Verification through Keystroke Biometrics
D51	112-H61-E2	T	SoftEng	M	Eric Zhang & Nicholas Liu	Voice Control for Electronic Wheelchairs
D50	112-H62-C2	T	SoftEng	F	Hrishika Basava & Shivani Parekh	Proximity Based Steering Wheel Prototype to Prevent Distracted Driving
D48	112-H63-A2	T	SoftEng	M	Aaron Lopes & Michael Wan & Nathan Ang	Stock Price Prediction Using Mathematical Modeling & Machine Learning
D47	112-H70-D1		SoftEng	M	Jasper Huang	A Novel Machine Learning Framework Integrating Statistical Features for Auditory Gait Recognition as a Unique Biometrics
D45	112-H71-A2	T	SoftEng	M	Avinash Jain & Nikhil Ajarapu	A Machine Learning Algorithm for Classification of Medical Problems through SMS

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
D44	112-H72-91		SoftEng	M	Andrew Lyle	Calculating Pi
D43	112-H73-71		SoftEng	M	Tommy Heng	Genome Sequence Generator and Partitioner
D39	112-H80-82	T	SoftEng	M	Lam Tran & Edward Rinaldo & Justin Huynh	ROBOT CAR
D38	112-H81-71		SoftEng	F	Aratrika Ghatak	Developing a Predictive Model for On-Campus Crime using Machine Learning Algorithms and Reporting via Mobile App.
D37	112-H82-51		SoftEng	M	Kevin Hsu	Developing a Response Surface Model to Visualize the Machine Learning Process of a Neural Network
C30	112-H83-31		SoftEng	M	Aayush Gupta	A Better Uber: Reinforcement Learning Pricing to Help Users in the On-demand Economy
D36	112-H90-51		SoftEng	M	Ryan Lee	A self-contained file Encryptor based on the Arduino platform
D35	112-H91-22	T	SoftEng	M	Adiyan Kaul & Sohan Vichare	Thor: A Disaster Prediction and Relief System using Autonomous Drones, Computer Vision, and Artificial Intelligence
D34	112-H92-11		SoftEng	M	Shiv Ansal	Emotional Recognition Analysis using Facial Expressions and Cues
D33	113-110-C2	T	BehavSci	F _M	Anika Banga & Ronit Dey	What are the Effects of Short-term Media Intervention on Beliefs About Women in STEM?
D32	113-120-91		BehavSci	M	Michael Kwan	Analysis of the Japanese Liquid Geminant Consonant
D31	113-130-51		BehavSci	F	Millie Lin	The Prevalence of Parent-Teacher Interactions and their Influence on Student Outcomes in Developing Countries
D30	113-140-11		BehavSci	F	Myra Cheng	Understanding Arithmetic Learning in Young Children through a Novel Computational Model of Number Representation
D29	113-220-11		PlantSci	F	Anika Ramachandran	Determining the Trade-off Between Plant Growth and Defense for Brassica Rapa
D28	113-310-E1		AnimalSci	F	Estelle Yoo	Reduction of Fat Accumulation in Caenorhabditis Elegans by 3,3 Diindolylmethane
D27	113-320-A1		AnimalSci	F	Dipashreya Sur	Geospatial Analysis of Grey Wolf Movement Patterns
D26	113-330-61		AnimalSci	F	Kelly Ho	Role of Olfactory Cues in the Detection of California Mussels by the Nucella Emarginata
D22	113-410-52	T	BiocheMic	F _M	Divija Bhimaraju & Neelesh Ramachandran	Determining the Effect of the Age of the Environment on the Incidence of Cellular Senescence
D21	113-420-21		BiocheMic	M	Eric Jeong	Dissecting Interactions Between Regulators of the Quorum Response in Bacillus subtilis
D20	113-510-F1		BioInfo	M	Rajiv Movva	Machine Learning-Based Discovery of Synergistic Drug Combinations for Rapid and Effective Cancer Treatment
D19	113-511-D1		BioInfo	M	Bryan Chiang	Glioblastoma Multiforme Segmentation through Hierarchical Neural Networks
D18	113-520-B1		BioInfo	M	Sushant Thyagaraj	The Development of a Computational Pipeline For The Identification of Prostate Cancer Aggressiveness Using Deep-CNN
D17	113-521-91		BioInfo	M	Ashwin Nathan	Analyzing Glut4 Expression and RNA-Sequencing Data to Understand the Relationship Between Type 2 Diabetes and HD
D16	113-531-51		BioInfo	M	Advait Patil	An information-theoretic approach for Bayesian assignment of biomolecule models to EM images
D15	113-540-31		BioInfo	F	Anooshree Sengupta	A Multifaceted, Genetic-Based Drug Repositioning Study Across Several Disease Types
D14	113-550-G1		BioInfo	F	Eesha Gholap	Analysis of the machine assisted scorings of immunohistochemistry

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
						protein expression in tissue cancer
D13	113-570-81		BioInfo	F	Gaeun Kim	Assessing treatment response in colorectal cancer patients through novel volumetric contrast-enhanced ultrasound methods
D12	113-580-41		BioInfo	F	Melissa Wei	Identifying therapeutic targets for joint specific rheumatoid arthritis using Bayesian network models
D11	113-590-H1		BioInfo	F	Susan Zhou	The Impact of Tertiary Lymphoid Structures on Tumor-Immune Response
D10	113-610-71		MedHeaSci	F	Rachel New	The Impact Common Pharmaceuticals have on the Oxidative Stress Levels of Drosophila Melanogaster
C10	113-611-51		MedHeaSci	F	Isha Mehrotra	Identifying novel prion-like proteins from SNT1+ Human Homologs in Saccharomyces cerevisiae
C11	113-630-G1		MedHeaSci	M	Jimmy Lin	Automated Breast Cancer Diagnosis: A Novel Assessment of Tumor-Associated Stroma Using Deep Learning Algorithms
C12	113-680-D1		MedHeaSci	M	Karthik Ramachandran	Breaking Down Barriers: Using RNAi on ABC Transporter Genes to Determine Role in Organism Survival and Toxin Resistance
C13	113-710-G1		BiomedEng	F	Ashmita Rajkumar	MedHack: The Impact of Malware Attack upon Biomedical Devices
C14	113-720-C1		BiomedEng	F	Anna Vardapetyan	"DNA Chemofilter: Novel method to prevent chemotherapeutic toxicity."
C15	113-730-81		BiomedEng	M	Rohan Mehrotra	A Novel Nanoscale Approach to Combat Disease: Electrically-stimulated Drug Release from Biodegradable PCL Nanoparticles
C16	113-740-41		BiomedEng	F	Mythili Bhethanabotla	Automated Classification of Rhabdomyosarcoma Tumors: A Novel Method to Determine Appropriate Therapy
C17	114-A10-A1		Chemistry	F	Sophia Sydir	T-shirts-The New Fuel?
C18	114-B10-21		CheEnvEng	M	Sachin Narayan	The Design and Construction of an Underwater Oil Cleanup Device for Platforms and Ships to Contain Oil Plumes
C19	114-D10-31		PhysAstr	M	Jerry Chen	Modeling the Internal Rotation and Dispersion of Distant Galaxies (z ~ 1.0) Using Multi-PA Keck DEIMOS Slit Spectra
C20	114-E10-C1		ElecEng	F	Tithi Mandal	Effects of Cross Talk and How to Eliminate it in High Speed Communication
C21	114-E20-72	T	ElecEng	M	Gautham Reddy Gujjula & Yash Tandon	Demystifying Electromagnetic Coupling Within Antenna Arrays
C22	114-F10-41		MechEng	M	Rohan Dhesikan	Fabrication and Manipulation of Magnet Micro Robots for Complex Engineering Applications
C23	114-H10-51		SoftEng	F	Amy Dunphy	Ditch the Keyboard: A Novel Touchless Input Scheme
C26	114-H20-11		SoftEng	F	Amy Jin	Deep learning-based automated tool detection and analysis of surgical videos to assess operative skill
C27	114-H30-E1		SoftEng	M	Utkarsh Tandon	OneRing: An Intelligent Wearable Ring for Automated Parkinson's Diagnostics through ML-based Random Forest Ensembles
C28	114-H40-A1		SoftEng	F	Holly Jackson	Unlocking History: An Algorithm to Virtually Unfold 3D Computed Tomography Scans of Unopened Historical Documents
C29	114-H60-12	T	SoftEng	M	Justin Yu & Wesley Luh	Optimizing Machine Learning Based Ocean Oil Spill Detection using Genetic Algorithm Techniques
G13	114-H90-71		SoftEng	M	Rohan Koodli	Identifying Genes affected by Metformin in Triple-Negative Breast Cancer
C31	121-110-D1		BehavSci	M	Talal Sohail	Using Drosophila melanogaster as a Model Organism to Investigate the Effects of Geometric Patterns on Food Attraction

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
C33	121-140-H2	T	BehavSci	M	Kevin Xu & Raymond Xu	Modeling the Dual Effect of Governmental Aid and Hospital Subsidization on Hospital Performance: An Affordable Care Act
C34	121-150-E1		BehavSci	F	Amulya Vadlakonda	The Effects of Awareness Models on the Sustainability of our Organ Donation System
C35	121-210-42	T	PlantSci	F/M	Adrian Borunda & McKinley Madison	The Effects of Cigarette Litter and Triclosan on Plant Cell Resilience to Freezing
C36	121-320-A1		AnimalSci	M	Jacob Chung	The Effects of Ocean Acidification on the Adult Starfish <i>Ophioderma squamosissimus</i>
C37	121-330-52	T	AnimalSci	M	Bryce Tharp & Xander Woyciehowsky	Mitigating the Effects of Blue Light Exposure in <i>Danio rerio</i>
C38	121-340-21		AnimalSci	M	Jay Uppuluri	Examining the combination of photoactivated adenylylase and channelrhodopsin2 in optogenetic activation of <i>C. elegans</i>
C39	121-350-F1		AnimalSci	F	Daijunay Turner	The Role of Invasive Snail Ecology in the Production of Possible Natural Buffer Solutions
C42	121-410-61		BiocheMic	F	Varvara Shvareva	Upregulating the levels of the microtubule severing protein spastin in neuroblastomas to model axonal regeneration
C43	121-420-12	T	BiocheMic	M	Charley Wang & Jonathan To	The effects of polyphenol inhibitors on Alpha-Synuclein fibril formation in vitro.
C44	121-430-F1		BiocheMic	F	Leah Bourgan	Examining the combined effects of 2-DG and calycoxin on apoptosis of cancer cells
C45	121-440-B1		BiocheMic	M	Jordan Gorospe	Green tea catechins inhibitory effects on tumorigenesis
C46	121-441-82	T	BiocheMic	F	Nhi Ngo & Dan Nguyen	The effect of antibiotics on acne bacteria
C47	121-470-F2	T	BiocheMic	F	Riana Karim & Sharon Truong	The Effect of Different Probiotic Bacterial Strains on Ammonia (NH ₃) Production Levels
C48	121-480-C1		BiocheMic	F	Samika Kikkeri	E.coli biofilms and induction of natural transformation
C49	121-490-81		BiocheMic	F	Samantha Cheung	The Investigation of the Prevalence of the Wolbachia Gene in Arthropods from Cities of the Bay Area
C50	121-510-F1		BiolInfo	M	Gautam Prabhu	Kinetic Modeling of Signal Transduction in the Intra-S Phase DNA Damage Checkpoint
C51	121-540-31		BiolInfo	M	Pravin Ravishanker	ALZCan: Predicting Future Onset of Alzheimer's Disease Using Polygenic Risk Scores and Multiple Neuroimaging Modalities
C52	122-A10-A1		Chemistry	F	Anisha Palasamudrum	Testing Vitamin E Isomers to downregulate VEGF Receptors and inhibit angiogenesis.
C53	122-A20-61		Chemistry	F	Chiara Cerruti	Analyzing the Effect of Sulindac Derivatives on the Aggregation of Amyloid Beta Protein
C54	122-A30-21		Chemistry	F	Mikayla Marrin	The effect of flavonoids on exopolysaccharide matrix of bacterial biofilms
C55	122-A40-F1		Chemistry	F	Hannah Milligan	The Effect of St. John's Wort on the Serotonin Response Behavior in <i>C. elegans</i>
C56	122-A50-B1		Chemistry	M	Tan Ho	The effect of juice vesicles on H ⁺ diffusion in the electrolyte of a grapefruit battery
C57	122-A60-71		Chemistry	F	Angela Bui	What is the effect of different water treatment methods on the removal of Copper (II) ions?
B56	122-A70-22	T	Chemistry	F	Vianna Vo & Allison Lee	Removal of Boron and Other Harmful Solutes from Greywater Using Low-Cost Household Items
B55	122-A90-C1		Chemistry	M	Mark Brogan, Jr	Acid, Base, and Breakfast
B53	122-B10-12	T	CheEnvEng	M	Sanam Nagvekar & Dhilip Raman & Ashish Prasad	What is the Effect of Sulphur - Limonene Polysulphide on the Elimination of Heavy Metals.
B52	122-C10-B1		EarEnvSci	F	Veronica Hsu	The extent at which plant derived saponin can be used as a biosurfactant to remediate contaminated soil

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
B50	122-C20-62	T	EarEnvSci	F	Hillary Trinh & Tracy Doan & Michelle Le	Durability of Biodegradable Fabric Alternatives
B49	122-C30-22	T	EarEnvSci	F	Swathi Ramprasad & Kanika Nair	Is red marine seaweed able to detoxify plastic pollutants in the Brine Shrimp population?
B47	122-C40-F2	T	EarEnvSci	F/M	Tina Kim & Dong Tran & Lani Luong	Pisaster Disaster: Observation on Sea Star Wasting Disease in Natural Bridges State Beach Tide Pools
B46	122-D10-31		PhysAstr	M	Anthony Ramos	The Importance of Surface Area and Emissivity in Miniature Heat Sinks for Small Devices
B45	122-D11-11		PhysAstr	F	Julia Yu	The effect of impact velocity on the radius of splatter of liquid on flat surface
B44	122-D20-G1		PhysAstr	F	Jennifer Huang	Analyzing the Effects of Differing Musical Tone Colors on the Frequency Spectrum Using Spectrum Analysis
B43	122-D30-B2	T	PhysAstr	M	Shashank Dholakia & Shishir Dholakia	Searching for Exoplanets: A Novel K2-based Study of the Effects of Open Cluster Characteristics on Exoplanet Abundance
B42	122-D40-81		PhysAstr	F	Carleen Markey	Effects of Magnetic Field Strength on Ozone Layer Depletion
B39	122-D50-41		PhysAstr	F	Anh Duong	Reducing the Falling Time of an Object by Rotational Inertia
B38	122-D60-H1		PhysAstr	M	Harrison Ngo	Measurement of Heat Being Transferred
B37	122-D70-D1		PhysAstr	M	Shanmurugan Selvamurugan	Designing a Probabilistic Photometric Transit Algorithm to Increase Success Rates of Identifying Earth-like Planets
B36	122-D80-91		PhysAstr	F	Selene Cortes	Geothermal/Renewable Heater
B35	122-D90-51		PhysAstr	M	Shaunak Modak	A Study of the Impact of the Host Galaxy's Characteristics on Metallicity of a Globular Cluster
B33	122-E10-B2	T	ElecEng	M	Avneesh Mehta & Klemen Kotar & Varin Goyal	Electrical Power System for High-Powered Rockets
B31	122-E20-72	T	ElecEng	M	Sammy Khadder & Bradley Seamons	Around the Corner
B30	122-F10-41		MechEng	M	Steven Wong	Developing photovoltaic cells using Titanium Dioxide and citrus fruits
B29	122-F11-21		MechEng	M	Nilay Sawant	FitBox: A Smart Diet Controlling Container for Type 2 Diabetes
B28	122-F20-H1		MechEng	M	Richard Le	Diffraction & Aperture Manipulation of Digitized Camera Obscura
B27	122-F21-F1		MechEng	F	Trishla Pokharna	Solar Water Harvesting from Moist Air
B26	122-F30-C2	T	MechEng	F	Jazlynn Windham & Tamieka Gibbs	Designing Structurally Stable Wall Units Usable in Regions with Limited Resources
B23	122-F31-B1		MechEng	M	Gajan Nagaraj	A Novel Fire Hazard Autodetect System for Vents, Pipes, and Chimneys.
B21	122-F40-82	T	MechEng	M	Dosa Ty & Nathan Le & Jeffrey Nguyen	Redesigning Airplane Seats for Optimal Space and Comfort
B20	122-F50-51		MechEng	M	Hoaian Dang	Deployable Photovoltaic Cells Designed for Small Satellites
B19	122-F60-11		MechEng	M	Harlan Wiitala	Innovative CubeSat Thermal Regulation Using Phase-Changing Materials
B17	122-F70-D2	T	MechEng	M	Nam Nguyen & Jason Tran & Brian Nguyen	An Earthquake Alarm System To Provide Warnings Within Buildings
B16	122-F80-A1		MechEng	M	Albert Xu	Making and testing a haptic joystick controller with magnetorheological fluid
B14	122-F90-52	T	MechEng	M	Justin Nguyen & David Thach & Kulraj Naru	The Difference Between Life and Death: How a Helmet's Design Affects its Strength
B13	122-G20-91		Math	M	Grant Kramer-Weis	The Mathematics of Well-Mixed Decks
B12	122-H10-51		SoftEng	F	Elina Yon	eyeHelper: An iOS Application Aid for the Visually Impaired
B10	122-H11-22	T	SoftEng	M	Pavel Frolikov & Neil Katahira & Kenneth Doan	The Cane That You Can See
A10	122-H20-H2	T	SoftEng	F/M	Devyen Biswas & Erika Biswas	What is the Optimum Data Volume for Persistent and Accurate Data Transfer from IoT Devices/Sensors to Cloud Storage?
A11	122-H30-E1		SoftEng	M	Nicolas Chan	Evaluating and Developing Algorithms for Computer Music Composition
A13	122-H40-92	T	SoftEng	M	Raghav Kapoor & Yao Dai & Minh Vo	Controlling drones wirelessly using simple hand motion from a computer

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
A14	122-H50-61		SoftEng	F	Alana Beyer	Assessing the accuracy of WordtoVec Assisted Translations of Uncommon Languages
A15	122-H60-21		SoftEng	M	Kaushik Tandon	H.A.W.K. Hate Speech Detection using Artificial Intelligence
A16	122-H70-F1		SoftEng	M	Krish Kalai	Efficient algorithm to store and retrieve geo-coded data for augmented reality (AR) applications.
A18	122-H80-A2	T	SoftEng	M	Muhammad Anas & Syed Hassan	Classroom Behavioral Management Tool
A19	122-H90-71		SoftEng	M	Ganesh Valliappan	HAIL: A Novel Pathfinding Algorithm for Disaster Situations
A20	123-120-B1		BehavSci	M	Alan Huang	Engaged by Elgar: Stratified Analysis of Physiological Responses to Naturalistic Music
A21	123-410-81		BiocheMic	M	Scott Song	Development of a Novel Therapeutic Strategy for Neurodegenerative Diseases Using a Microfluidic Co-Culture System
A22	123-460-51		BiocheMic	F	Margo Lusinchi	The effect of Gallium +3 cation on Diffuse Intrinsic Pontine Glioma (DIPG) cells
A23	123-470-11		BiocheMic	F	Marilyn Zhang	Inflammatory Immune Cell-derived Extracellular Vesicles Impose Malignant Phenotypes in Normal Breast Epithelial Cells
A26	123-480-E1		BiocheMic	M	Gokul Kalyanasundaram	Tuning Promoters for Glucose Detection in Escherichia. coli Using Energy Matrix Based Computational Model
A27	123-510-H1		BioInfo	F	Angela Kim	Radial Vector Scanning (RVS) Algorithm for Breast Cancer Segmentation
A28	123-520-D1		BioInfo	M	Arjun Subramaniam	CadML: Computational Antibody Design Through Deep Learning and Structural Protein Analysis
A29	123-530-91		BioInfo	F	Evani Radiya-Dixit	Identification of Therapeutic Cancer Targets Across Adenocarcinomas Using Genome-wide DNA Methylation Analyses
A30	123-540-51		BioInfo	M	Manan Shah	Deep Learning Assessment of Tumor Proliferation in Histological Images for Comprehensive Breast Cancer Severity Analysis
A31	123-550-H2	T	BioInfo	M	Alexander Wang & Mikhail Ivkov	Modeling of Relative Quantification Data from Tandem Mass Tags Mass Spectrometry
A32	123-570-92	T	BioInfo	M	Alexander Ivanov & Anthony Ngo	Relation of Body Size and Ecological Modes
A33	123-580-61		BioInfo	F	Tanisha Joshi	Identification of Gene Expression Signatures Linked to Patient Treatment Response in Leukemia Studies from Open Data
A34	123-590-21		BioInfo	M	Sajeev Saluja	Effects of Marijuana Usage on Risk for Cardiovascular Disease
A35	123-620-51		MedHeaSci	F	Katherine Mumm	Disassembly of LDL by Bromelain: Investigating a New Approach to Attacking Atherosclerotic Plaques
A36	123-640-E1		MedHeaSci	M	Thomas Thach	The Expression Pattern and Function of Fgf12 in Embryonic Heart Development
A37	123-650-A1		MedHeaSci	F	Ankita Chatterjee	Neuronal Receptor Plasticity in Response to Pregnenolone Sulfate as a Novel Therapeutic for Neurodegenerative Diseases
A38	123-660-61		MedHeaSci	F	Shriya Perati	Exploring the Role of the 16p11.2 Copy Number Variation in Neurodevelopmental Disorders
A39	123-680-F1		MedHeaSci	F	Roxanne Ohayon	The Role of Exercise-Induced Mitochondrial Fission During Ischaemic Injury
A42	123-690-B1		MedHeaSci	M	Pranav Lalgudi	CRISPR/Cas9-based in vivo somatic gene editing enables investigation of Kras mutant function in mouse models of cancer
A43	123-710-11		BiomedEng	M	Arvind Sridhar	Toward Precision Medicine: Harnessing Graphene Hydrogels, iPSCs, and Computational Models for Cardiac Tissue Engineering

Synopsis Championship 2017

Master Project List

Loc.	Proj. Num.	Team	Field	Gender	Students	Title
A44	123-720-E1		BiomedEng	M	Vardhaan Ambati	Personalized Cancer and Viral Therapy: Clostridium-based Cell Delivery System coupled to CRISPR/Cas9 Nanotherapeutic
A46	124-B10-41		CheEnvEng	M	Aditya Menon	Engineering Biologically Inspired Enzymatic Analogs: Hybrid Organic/Inorganic Nanocatalysts
A47	124-C10-D1		EarEnvSci	M	Sandip Nirmel	The Biological Pump in a Changing Climate: Identifying Drivers of Sinking of Antarctic Phytoplankton and Ice Algae
A48	124-C20-91		EarEnvSci	M	Akaash Tawade	Operation Pulse: Quantifying the Impact of Precipitation and Inundation on Pulsed Salt Marsh Greenhouse Gas Fluxes
A49	124-D10-51		PhysAstr	F	Sneha Bhetanabhotla	Examining the Chiral Vortical Effect in Weyl Semimetals
A51	124-F10-52	T	MechEng	M	Vivek Menon & Nidhin Madhu & Dev Sharma	Heat Management of an LED High Power Light Panel
A52	124-F20-21		MechEng	M	Eric Wang	Flow Characterization of Airwakes Around a Naval Ship Model
A53	124-G10-F1		Math	M	Salvador Raymundo-Diaz	Using nonlinear quantum mechanics to prove $p = np$.
A54	124-G20-B1		Math	M	Matthew Hase-Liu	Efficient Point-Counting Algorithms for Superelliptic Curves via the Cartier Operator and the Hasse-Weil Bound
A55	124-H30-F2	T	SoftEng	F/M	Anika Cheerla & Nikhil Cheerla	Mitosis Detection and Tumor Grading Using Deep Convolutional Neural Networks
A56	124-H40-C1		SoftEng	M	Rishab Gargeya	EyeLogic: All-Purpose Vision Disease Detection in Clinic-Sourced and Low-Cost Smartphone-Based Retinal Images
A57	124-H50-81		SoftEng	M	Allen Chen	Using Neural Networks to Predict Future Heart-Related Hospitalizations Based on Patients' Electronic Health Records