Entry Number: 1 GL
THE ROLE OF INDIRECT HYDROPHOBIC INTERACTIONS IN SUBSTRATE RECOGNITION
By: Raniel Alcantara
Biology
Faculty Advisor: Dr. Teaster Baird, Jr.

Entry Number: 2 GL
INVESTIGATION OF LOW SALINE RESISTANCE IN SINORHIZOBIUM MELILOTI
By: Charlene Navarrete
Cell and Molecular Biology
Faculty Advisor: Dr. Joseph Chen

Entry Number: 3 GL
THE EFFECTS OF WNT6 IN SOMITE PATTERNING
By: Eugenel Espiritu
Cell and Molecular Biology
Faculty Advisor: Dr. Laura Burrus

Entry Number: 4 GL
TOWARDS THE STUDY OF A PHYSICAL INTERACTION BETWEEN CDC24 AND THE CDS1 CHECKPOINT KINASE IN SCHIZOSACCHAROMYCES POMBE
By: Noel Cruz
Cell and Molecular Biology
Faculty Advisor: Dr. Sally G. Pasion

Entry Number: 5 GL
UNDERSTANDING THE ROLE OF SWRAA IN SPORULATION IN A SWARMING STRAIN OF BACILLUS SUBTILIS
By: Rebecca Garcia
Cell and Molecular Biology
Faculty Advisor: Dr. Leticia Marquez-Magaña

Entry Number: 6 GL
THE ROLE OF P53 IN APOPTOSIS OF GASTROINTESTINAL TISSUE STEM CELLS OF LATE GENERATION TERT –/– MICE
By: Terry Reyes
Cell and Molecular Biology
Entry Number: 7 GL
WNTLESS-DEPENDENT DISTRIBUTION AND ACTIVATION OF WNT1 AND WNT3A
By: Lydia Li
Cell and Molecular Biology
Faculty Advisor: Dr. Laura Burrus

Entry Number: 8 GL
PROTEIN 3D STRUCTURAL MATCHING USING RESIDUE CONTEXTS
By: Jay Kim
Marine Biology
Faculty Advisor: Dr. Rahul Singh

Entry Number: 9 GL
SPHINGOMYELIN IN MEMBRANE RAFTS REGULATES C2C12 MYOBLAST DIFFERENTIATION AND MYOTUBE FORMATION
By: Jung Lim and Yuko Okamoto
Cell and Molecular Biology
Faculty Advisor: Dr. Wilfred Denetclaw

Entry Number: 10 GL
THE ATF3 TRANSCRIPTION FACTOR INDUCIBLY BINDS TO THE IFN-β PROMOTER IN MACROPHAGES DURING SIMULATED MICROBIAL INFECTION
By: Marvin J. Sandoval
Cell and Molecular Biology
Faculty Advisor: Dr. Steve Weinstein

Entry Number: 11 GL
THE ROLE OF LEUCOKININ IMMUNOREACTIVITY IN THE TOBACCO HORNWORM, MANDUCA SEXTA, IN THE PROCESS ECDYSIS
By: Roth Ea
Cell and Molecular Biology
Faculty Advisor: Dr. Megumi Fuse

Entry Number: 12 GL
ECTODERM PLASMA MEMBRANE SPHINGOMYELIN REGULATES SOMITE MYOTOME FORMATION IN CHICK EMBRYOS
By: Tenzin Bhutia and Dr. Wilfred Denetclaw
Cell and Molecular Biology
Faculty Advisor: Dr. Wilfred Denetclaw

Entry Number: 13 GL
DESCRIBING ECDYSIS BEHAVIOR IN STICK INSECTS
By: Andrew Carriman
Physiology & Behavioral Biology
Faculty Advisor: Dr. Megumi Fuse

Entry Number: 14 GL
DUAL ROLES OF THE CONSERVED GLC7/PP1 PHOSPHATASES, GSP-3 AND GSP-4, IN CHROMOSOME DYNAMICS AND SPERM ACTIVATION
By: Aiza Cathe A. Go, Bernadette Nera, and Mark Samson
Physiology & Cell and Molecular Biology
Faculty Advisor: Dr. Diana Chu

Entry Number: 15 GL
SENSITIZATION IN MANDUCA SEXTA
By: Marissa McMackin and Emily Merchasin
Physiology and Behavior Biology
Faculty Advisor: Dr. Megumi Fuse

Entry Number: 16 GL
DETERMINATION OF THE NEUROTRANSMITTER THAT INHIBITS THE CNS DURING ECYDSIS IN THE HORNWORM, MANDUCA SEXTA
By: Laura Mendoza and Sabina Bera
Physiology and Behavioral Biology
Faculty Advisor: Dr. Megumi Fuse

Entry Number: 17 GL
EXPANDING YOUR HORIZON PRE-POST SURVEY ANALYSIS
By: Chia Teoh
Cell and Molecular Biology
Faculty Advisor: Dr. Kimberly D. Tanner

Entry Number: 18 GL
By: Carol Umanzor
Cell and Molecular Biology and Biological Education
Faculty Advisor: Dr. Kimberly Tanner
Entry Number: 19 GL
MOLECULAR SYSTEMATICS OF PHACELIA (BORAGINACEAE).
By: Genevieve K. Walden
Ecology and Systematic Biology
Faculty Advisor: Dr. Robert Patterson

Entry Number: 20 GL
ARTHROPOD DIVERSITY ON THE CALIFORNIA ACADEMY OF SCIENCES' GREEN ROOF
By: Jessica Van Den Berg and Christopher Quock
Ecology and Systematic Biology
Faculty Advisor: Dr. John Hafernik

Entry Number: 21 GL
DEALING WITH THE GENDER PARTICIPATION GAP IN SECONDARY SCIENCE EDUCATION
By: Thomas Jenkinson and Priscilla Owren (Horace Mann Academic Middle School)
Ecology and Systematic Biology
Faculty Advisor: Dr. Kimberly D. Tanner

Entry Number: 22 GL
METABOLIC RESPONSES TO ENVIRONMENTAL SALINITY IN THE CLAM CORBULA AMURENSIS
By: Adam Paganini and Dr. Jonathon Stillman
Marine Biology
Faculty Advisor: Dr. Jonathon Stillman and Dr. Wim Kimmerer

Entry Number: 23 GL
By: Andrea Cayenne
Marine Biology
Faculty Advisor: Dr. Jonathon Stillman

Entry Number: 24 GL
INVESTIGATING BAY AREA FILIPINOS' IDEAS TOWARD ENVIRONMENTAL CONSERVATION IN A MUSEUM SETTING
By: Courtney Scott
Marine Biology
Faculty Advisor: Dr. Kimberly D. Tanner

Entry Number: 25 GL
MICROARRAY ANALYSIS OF HEAT STRESS IN SAMOAN CORALS
By: Tyler Waterson and Dr. Jonathon Stillman
Marine Biology
Faculty Advisor: Dr. Jonathon Stillman

Entry Number: 26 GL
EFFECT OF BINDING FATTY ACIDS ON THE GLYCATION OF HUMAN SERUM ALBUMIN
By: April Ranney and Emelia Padilla
Biochemistry
Faculty Advisor: Dr. Raymond Esquerra

Entry Number: 27 GL
ROLE OF CONFORMATIONAL CHANGES IN SOLUBLE GUANYLATE CYCLASE
By: Jasmin Kristianto, Kensuke Yamamoto, Stephanie Wood, and Makena Muchunku
Biochemistry
Faculty Advisor: Dr. Nancy Gerber

Entry Number: 28 GL
S-NITROSYLATION OF SOLUBLE GUANYLYL CYCLASE
By: Kensuke Yamamoto
Biochemistry
Faculty Advisor: Dr. Nancy Gerber

Entry Number: 29 GL
USING TIME-RESOLVED FLUORESCENCE TO LOOK AT PROTEIN CONFORMATION
By: Stephanie Wood
Biochemistry
Faculty Advisor: Dr. Nancy Gerber

Entry Number: 30 GL
PHOTOLYSIS OF SPERM WHALE CARBONMONOXMYOGLOBIN.
By: Benjamin Lintner and Ignacio Lopez
Chemistry
Faculty Advisor: Dr. Raymond Esquerra

Entry Number: 31 GL
THE EFFECT OF CALMODULIN AND CALCIUM BINDING ON THE REACTIVITY OF THE HEME ACTIVE SITE IN NNOS
By: Mike Minton, Pooncharas Tipgunlakant, Luiz Galdino, and Christopher M. Bernt
Chemistry
Faculty Advisor: Dr. Raymond Esquerra

Entry Number: 32 GL
SOLUTION STRUCTURE OF PROTEINS BY MD SIMULATION
By: Qiuting Hong
Chemistry
Faculty Advisor: Dr. Sergio Aragon

Entry Number: 33 GP
ORDERED TITANIUM DIOXIDE FILMS GROWN ON SELF-ASSEMBLED MONOLAYERS
By: Shirin M. Usmani, Diana Mars, and Dr. Andrew S. Ichimura
Chemistry
Faculty Advisor: Dr. Andrew S. Ichimura

Entry Number: 34 GP
XMAS: EXPERIENTIAL VISUALIZATION, MINING, AND ANALYSIS OF TIME-SERIES MICROARRAY EXPERIMENTS
By: Ben Dalziel
Computer Science
Faculty Advisor: Dr. Hui Yang and Dr. Rahul Singh

Entry Number: 35 GP
DIRECTIONAL MEAN SHIFT
By: Mehran Kafai and Yiyi Miao
Computer Science
Faculty Advisor: Dr. Kazunori Okada

Entry Number: 36 GP
WEB-BASED TOOLS FOR ENHANCING TEACHER PREPARATION PROGRAMS
By: Xinhang Shao and Ngoc Lam-Miller
Computer Science
Faculty Advisor: Dr. Kazunori Okada

Entry Number: 37 GP
ANALYSIS OF SRAM RELIABILITY UNDER VARIATIONS AND TRANSISTOR AGING EFFECTS IN NANO-SCALE
By: Harwinder Singh
Electrical and Computer Engineering
Faculty Advisor: Dr. Hamid Mahmoodi

Entry Number: 38 GP
RAIL TRAFFIC CONTROL SIMULATOR FOR MAXIMIZING THROUGHPUT
By: Ko Narita
Electrical Engineering
Faculty Advisor: Dr. V.V. Krishnan

Entry Number: 39 GP
A DRY COMBUSTION METHOD TO DETERMINE NATURAL 13C AND 14C ABUNDANCES IN MARINE DISSOLVED ORGANIC CARBON
By: Leah Johnson
Applied Geosciences
Faculty Advisor: Dr. Tomoko Komada

Entry Number: 40 GP
POST-MIDDLE-PLEISTOCENE TECTONIC DEVELOPMENT OF THE CONFIDENCE HILLS, SOUTHERN DEATH VALLEY, CALIFORNIA
By: Joshua T. Goodman, Dr. S. John Caskey, Dr. Elmira Wan, Dr. David B. Wahl, and Dr. Andrei M. Sarna-Wojicicki
Geology
Faculty Advisor: Dr. S. John Caskey

Entry Number: 41 GP
STUDENT CONCEPTIONS OF WEATHER PHENOMENA ACROSS MULTIPLE COGNITIVE LEVELS
By: Elizabeth Polito
Geosciences
Faculty Advisor: Dr. John Monteverdi and Dr. Kimberly Tanner

Entry Number: 42 GP
A 3-D MAP OF THE BARTLETT SPRINGS FAULT, LAKE AND MENDOCINO COUNTIES, CALIFORNIA
By: Johnathan Brown
Geosciences
Faculty Advisor: Dr. S. John Caskey

Entry Number: 43 GP
M2K: A SEARCH FOR PLANETS ORBITING LATE K AND EARLY M DWARF STARS
By: Kelsey Clubb
Astronomy
Faculty Advisor: Dr. Debra Fischer

Entry Number: 44 GP
DECODING DARK MATTER: A DYNAMICAL CODE FOR THE JOINT ANALYSIS OF CLUSTER OBSERVATIONS
By: Alison Mansheim
Physics
Faculty Advisor: Dr. Andisheh Mahdavi

Entry Number: 45 GP
PROVING THE BERNOULLI-DEDEKIND SUM ANALOGUE OF POMMERSHEIM’S THREE-TERM DEDEKIND SUM RELATION
By: Anastasia Chavez
Mathematics
Faculty Advisor: Dr. Matthias Beck

Entry Number: 46 GP
USING HOMOLOGY TO DETECT COPY NUMBER VARIATION ASSOCIATED WITH BREAST CANCER RECURRENCE
By: Daniel DeWoskin
Mathematics
Faculty Advisor: Dr. Javier Arsuaga

Entry Number: 47 GP
A MODEL FOR SOCIAL NETWORKS
By: Elizabeth Gross
Mathematics
Faculty Advisor: Dr. Arek Goetz

Entry Number: 48 GP
EXIT STRATEGIES FOR STARTUP COMPANIES: A GAME THEORETIC APPROACH
By: Jasdeep Gambhir
Mathematics
Faculty Advisor: Dr. Jean-Pierre Langlois

Entry Number: 49 GP
TANGLESOLVE: A TOPOLOGICAL TOOL USED IN THE ANALYSIS OF SITE-SPECIFIC RECOMBINATION
By: Jennifer Lopez, Wenjing Zheng, and Dr. Mariel Vazquez  
Mathematics  
Faculty Advisor: Dr. Mariel Vazquez  
Entry Number: 50 GP  
COUNTING STANDARD AND SEMISTANDARD TREES  
By: Jupei Hsiao  
Mathematics  
Faculty Advisor: Dr. Federico Ardila  

Entry Number: 51 GP  
TROPICAL ORIENTED MATROIDS  
By: Kristen Freeman  
Mathematics  
Faculty Advisor: Dr. Federico Ardila  

Entry Number: 52 GP  
THE STUDY OF DNA PACKING ORGANIZATION OF P4 BACTERIOPHAGE  
By: Mela Hardin  
Mathematics  
Faculty Advisor: Dr. Mariel Vazquez  

Entry Number: 53 GP  
AUTOMATED IMAGE-BASED PHENOTYPIC SCREENING FOR HIGH-THROUGHPUT DRUG DISCOVERY  
By: Michalis Pittas and Ido Heskia  
Mathematics  
Faculty Advisor: Dr. Rahul Singh  

Entry Number: 54 GP  
A SURVEY THE ENTROPY OF SELF-AVOIDING POLYGONS IN THE SIMPLE CUBIC LATTICE  
By: Zoe Talbot  
Mathematics  
Faculty Advisor: Dr. Yitwah Cheung, Dr. Rob Scharein, and Dr. Mariel Vazquez  

Entry Number: 55 UL  
STUDYING SPOOLING-LIKE CONFORMATIONS FOR DNA KNOTS IN WRITHE-DIRECTED ORGANIZATION OF DNA IN PHAGE CAPSIDS OF BACTERIOPHAGE P4  
By: Ariff Moolla and Mela Hardin
Biology and Mathematics
Faculty Advisor: Dr. Sally G. Pasion and Dr. Javier Arsuaga

Entry Number: 56 UL
ANNOTATION OF SEVERAL DICISTRONIC GENES IN 12 DROSOPHILID SPECIES
By: Henry Hunter, Teresa Laird, Christina Staubus, Lala Motlhabi, and Dr. Christopher D. Smith
Cell and Molecular Biology
Faculty Advisor: Dr. Christopher D. Smith

Entry Number: 57 UL
CHICKEN EMBRYO DEVELOPMENT: REGIONAL AND TEMPORAL DEVELOPMENT OF SOMITES
By: Remy Binder and Meghan Lane
Cell and Molecular Biology
Faculty Advisor: Dr. Wilfred Denetclaw

Entry Number: 58 UL
ROLE OF WNT4 ON MYOGENESIS DURING EARLY EMBRYONIC DEVELOPMENT IN THE CHICK
By: Anthony Eritano
Cellular and Molecular Biology
Faculty Advisor: Dr. Laura W. Burrus

Entry Number: 59 UL
FEEL THE DIFFERENCE: A STUDY OF THE BODY’S RESPONSE TO TACTILE STIMULI
By: Abraham Reynoso, Joe DeBattista, Ngo Nguyen, and Stephanie Cunningham
Physiology and Behavior Biology
Faculty Advisor: Anne Thilges

Entry Number: 60 UL
THE EFFECTS OF DISSONANT AND CONSONANT MUSIC ON HEART RATE, EEG BRAIN WAVE PATTERNS, AND GALVANIC SKIN RESPONSE
By: Kristina Millikan, Lisa Wise, and Inara Iskenderova
Physiology and Behavior Biology
Faculty Advisor: Anne Thilges

Entry Number: 61 UL
MEMBRANE RAFT DISRUPTION IN CHICKEN EMBRYO SKELETAL MUSCLE CELL CULTURES
By: Dianna Baldwin
Zoology
Faculty Advisor: Dr. Wilfred Denetclaw

Entry Number: 62 UL
THE PRESIDIO BEE BIODIVERSITY SURVEY
By: Christopher Quock and Jessica Van Den Berg
Ecology and Systematic Biology
Faculty Advisor: Dr. John Hafernik

Entry Number: 63 UL
COMPARATIVE STUDY OF LDH STABILITY IN RESPONSE TO PHYSIOLOGICAL STRESS ON TROPICAL AND TEMPERATE PORCELAIN CRABS
By: Haydee Medina
Marine Biology
Faculty Advisor: Dr. Jonathon Stillman

Entry Number: 64 UL
ARE SEA STARS OF THE GENUS LEPTASTERIAS SEPERATED BY HABITAT IN THE ROCKY INTERTIDAL OF NORTHERN CALIFORNIA? AN ANALYSIS USING MITOCHONDRIAL DNA AND MORPHOLOGY
By: Richard Coleman, Alyssa Lai, and Ashley Smith
Marine Biology
Faculty Advisor: Dr. Sarah Cohen

Entry Number: 65 UL
MEMBRANE COMPOSITION AND GENE EXPRESSION DURING THERMAL ACCLIMATION IN PORCELAIN CRABS
By: Daria Ronges
Marine Biology
Faculty Advisor: Dr. Jonathon Stillman

Entry Number: 66 UL
WORK IN PROGRESS
By: Paula Robinson
Physiology and Behavior Biology
Faculty Advisor: Dr. Jonathon Stillman
Entry Number: 67 UL
SUPER SCIENCE
By: Gaelen S. Smith and Alyssa Berry
Physiology and Zoology
Faculty Advisor: Dr. Kimberly Tanner

Entry Number: 68 UL
COMPUTATIONAL CHARACTERIZATION OF WATER ACCESSIBLE AREAS IN HYDROPHOBIC AREAS IN DISTAL HEME POCKET MUTANTS IN MYOGLOBIN
By: Ben Rodriguez
Biochemistry
Faculty Advisor: Dr. Anton Guliaev

Entry Number: 69 UL
SYNTHESIS, CHARACTERIZATION, AND SUBCELLULAR LOCALIZATION OF MITOCHONDRIA-BASED PORPHYRINIC PIGMENTS
By: Hnin Khin
Biochemistry
Faculty Advisor: Dr. Ursula Simonis and Dr. Meden Issac

Entry Number: 70 UL
INVESTIGATION OF PROTEIN INTERACTIONS THAT CONTROL THE NITRITE REDUCTASE ACTIVITY OF HEME PROTEINS
By: Lea Lough
Biochemistry
Faculty Advisor: Dr. Raymond Esquerra

Entry Number: 71 UL
NADH AND METAL BINDING EQUILIBRIA OF PHENYLACETALDEHYDE
By: Levenlou Vender
Biochemistry
Faculty Advisor: Dr. George Gassner

Entry Number: 72 UL
REDUCTION OF SELENIUM OXYANIONS BY ZERO-VALENT IRON SURFACES
By: Marisa Miller
Biochemistry
Faculty Advisor: Dr. Bruce Manning

Entry Number: 73 UL
MECHANISM OF STYRENEOXYGENASE WITH SUBSTRATE ANALOGS AND INHIBITORS
By: Mie Win
Biochemistry
Faculty Advisor: Dr. George Gassner

Entry Number: 74 UL
NEW FIELD METHOD FOR DETERMINATION OF ARSENIC IN WATER USING ION EXCHANGE AND XRF
By: Rene L. Johnson and Peter E. Baker
Biochemistry
Faculty Advisor: Dr. Pete T. Palmer

Entry Number: 75 UL
DESIGN OF A REVERSIBLY ACTIVATED TRYPsin VIA AN ENGINEERED METAL BINDING SITE
By: Anna Gubeladze
Biochemistry
Faculty Advisor: Dr. Teaster Baird, Jr.

Entry Number: 76 UL
EXPLORING THE REPRODUCIBILITY AND VALIDITY OF COMPARATIVE QUANTITATIVE POLYMERASE CHAIN REACTION
By: Laura Cooper and Yvonne Mak
Biochemistry
Faculty Advisor: Dr. Elizabeth Runquist

Entry Number: 77 UL
INTRODUCING NOVEL SUBSTRATE SELECTIVITY INTO TRYPsin THROUGH REDESIGN
By: Sayeeda Najibi
Biochemistry & Cell and Molecular Biology
Faculty Advisor: Dr. Teaster Baird, Jr.

Entry Number: 78 UL
SYNTHESIS OF ZEOLITE MFI FILMS VIA HYDROXIDE AND FLUORIDE ROUTES
By: Chris Reaves
Chemistry
Faculty Advisor: Dr. Andrew S. Ichimura
Entry Number: 79 UL
THE EFFECTS OF NON-ENZYMATIC GLYCATION ON THE NITRITE REDUCTASE ACTIVITY OF HEMOGLOBIN
By: Damon Robles, Yadiel K, and Kay Saw
Chemistry
Faculty Advisor: Dr. Raymond Esquerra

Entry Number: 80 UL
CHARACTERISTICS OF AN ALUMINUM (III) PHEOPHORBIDE-A SERINE DERIVATIVE AS POTENTIAL USE IN PHOTODYNAMIC THERAPY
By: Diem Huynh
Chemistry
Faculty Advisor: Dr. Ursula Simonis

Entry Number: 81 UL
GROWTH STUDIES OF ORIENTED MFI ZEOLITE FILMS AS A FUNCTION OF TIME
By: Dina Flamik
Chemistry
Faculty Advisor: Dr. Andrew S. Ichimura and Dr. Ursula Simonis

Entry Number: 82 UL
SYNTHESIS AND CHARACTERIZATION OF AMINO ACID SUBSTITUTED PHEOPHORBIDES
By: Kara Cross
Chemistry
Faculty Advisor: Dr. Ursula Simonis

Entry Number: 83 UL
ANAEROBIC DEGRADATION OF ORGANIC CARBON IN AN INTERTIDAL SEDIMENT: RELATIVE IMPORTANCE OF MAJOR ELECTRON ACCEPTORS
By: Mayu Kawaguchi and Jonathon A. Polly
Chemistry
Faculty Advisor: Dr. Tomoko Komada and Dr. Ursula Simonis

Entry Number: 84 UL
SYNTHESIS OF AN ARGinine SUBSTITUTed PEOPHORBIDE-A AS EFFECTIVE PHOTSENSITIZERS FOR PHOTODYNAMIC THERAPY (PDT)
By: Soohwan Kim
Chemistry
Faculty Advisor: Dr. Ursula Simonis
Entry Number: 85 UL
SURFACE CHEMISTRY UNDER PHOTOLYSIS
By: Stéphanie Cherdo
Chemistry
Faculty Advisor: Dr. Andrew S. Ichimura

Entry Number: 86 UP
SELF-ASSEMBLED MONOLAYERS TO SUPPORT THE GROWTH OF INORGANIC FILMS
By: Diana Mars and Shirin M. Usmani
Chemistry
Faculty Advisor: Dr. Andrew S. Ichimura

Entry Number: 87 UP
THE PLIOCENE RESPONSE TO WARMER THAN MODERN SEA SURFACE TEMPERATURES IN COASTAL UPWELLING REGIONS
By: Zi Zi Searles
Geology
Faculty Advisor: Dr. Petra Dekens

Entry Number: 88 UP
THE AVERAGE CROSSING NUMBER OF EQUILATERAL POLYGONS IN CONFINEMENT
By: Benjamin Borgo, Dr. Rob Scharein, Dr. Yuanan Diao (University of North Carolina, Charlotte), and Dr. Javier Arsuaga
Applied Mathematics
Faculty Advisor: Dr. Javier Arsuaga

Entry Number: 89 UP
MITOCHONDRIAL DNA STRUCTURE IN TRYPANOSOME
By: Chris Keown
Mathematics
Faculty Advisor: Dr. Javier Arsuaga

Entry Number: 90 UP
UNIMODALITY OF ORDER POLYNOMIALS
By: Christopher O'Neill
Mathematics
Faculty Advisor: Dr. Matthias Beck
Entry Number: 91 UP
CONSTRUCTION OF LATTICE KNOTS FROM THE GAUSS CODE
By: Nicholas Normandin
Mathematics
Faculty Advisor: Dr. Mariel Vazquez

Entry Number: 92 UP
HECKE OPERATORS ON PALINDROMIC POLYNOMIALS
By: Whitney Zeldow
Mathematics
Faculty Advisor: Dr. Matthias Beck

Entry Number: 93 UP
GUIDING AND ROUTING LIGHT ALONG DEFECT CHANNELS: FROM IMPERFECTION TO PERFECTION.
By: Ratna Lama
Physics
Faculty Advisor: Dr. Zhigang Chen

Entry Number: 94 UP
FOUNDATION FOR A 20-STORY BUILDING
By: Adamross Lingad, Kimberly Sindac, Timothy Shu, Raul Verduzco
Civil Engineering
Faculty Advisor: Dr. Tim D'Orazio

Entry Number: 95 UP
TRUSS BRIDGE
By: Ahlong Shin, Noris Gomez, Vu Le, Charles Njoroge, and Mesfin Agegnehu
Civil Engineering
Faculty Advisor: Dr. Norman Owen

Entry Number: 96 UP
AIR TRAFFIC CONTROL TOWER
By: Ahmed Thleijji, WenPei Kuang, and Patrick Howell
Civil Engineering
Faculty Advisor: Multu Ozer

Entry Number: 97 UP
BROTHERHOOD WAY STORM WATER REMEDIATION
By: David Reber, Nick Birth, Adam Krakow, Mingming Yee, and Alvin Yim
Civil Engineering  
Faculty Advisor: Dr. Elahe Enssani

Entry Number: 98 UP  
TIMBER ARCH BRIDGE  
By: Fabian Gomez, Greg Paulson, Lewis Hernandez, Jack Chen, Mikhail Ermakovich, Yonata Andemariam, Miguel Escudero, and Jose Reynolds  
Civil Engineering  
Faculty Advisor: Mutlu Ozer

Entry Number: 99 UP  
HIGH SPEED RAIL STATION  
By: Robert Halliday, Colin Kemper, Lucas Zimmer, Marjess Tacoban, Shiraz Muzaffar, and Sunia Malolo  
Civil Engineering  
Faculty Advisor: Dr. Wenshen Pong

Entry Number: 100 UP  
NEW SFSU ENGINEERING HALL  
By: Sean Jaime, James Go, Carrie King, and Tiffany Chin  
Civil Engineering  
Faculty Advisor: Dr. Wenshen Pong

Entry Number: 101 UP  
GEOTECHNICAL ENGINEERING OF FOUNDATION DESIGNS  
By: Travis Haft, Radoslaw Stamcher, Devon Crowe, and Stephen Jo  
Civil Engineering  
Faculty Advisor: Dr. Tim D'Orazio

Entry Number: 102 UP  
SMART MAGNETIC CARD READER FOR THE SCIENCE BUILDING  
By: Noppol Setobol, Akeem Abodunrin, and Ronnie Roraldo  
Computer Engineering  
Faculty Advisor: Dr. Hamid Shahnasser and Dr. Hao Jiang

Entry Number: 103 UP  
REAL-TIME IMPACT LOGGER & ANALYSIS  
By: Christina Phan, Teo Limbo, and Eli Lyons  
Electrical Engineering  
Faculty Advisor: Dr. Tom Holton
Entry Number: 104 UP
SONIC STICK
By: Danny Azar and Ho Yin Chan
Electrical Engineering
Faculty Advisor:

Entry Number: 105 UP
LOW POWER WIRELESS MEDICAL MONITORING SYSTEM
By: Di Lan, William Yu, and Dennison Lorenzana
Electrical Engineering
Faculty Advisor: Dr. Hao Jiang and Dr. Tom Holton

Entry Number: 106 UP
DESIGN PROJECT FOR DIGITAL IC DESIGN COURSES IN 90NM CMOS TECHNOLOGY
By: Eli Lyons
Electrical Engineering
Faculty Advisor: Dr. Hamid Mahmoodi

Entry Number: 107 UP
SOLAR TRACKER
By: Eugene Russiyanov, Jed Hewitt, and Kate Tun
Electrical Engineering
Faculty Advisor: Dr. Hao Jiang and Dr. Hamid Shannaser

Entry Number: 108 UP
ACCEL-O-MOUSE (CODENAME YODA)
By: Mathew Brady, Victor Manuell, and Lalesh Sharma
Electrical Engineering
Faculty Advisor: Dr. Hao Jiang

Entry Number: 109 UP
WIRELESS POWER TRANSFER
By: Mojan Norouzi, David Munguia, Akhil Malik, and Zeeshan Ali
Electrical Engineering
Faculty Advisor: Dr. Hao Jiang

Entry Number: 110 UP
SOLAR POWERED BATTERY Charger
By: Scott Siordia, Yves Fotso, James Carolino, and Kris Quismorio
Electrical Engineering
Faculty Advisor: Dr. Hao Jiang

Entry Number: 111 UP
INVERTED PENDULUM ROBOT
By: Tim Wang and Curtis Hilger
Electrical Engineering
Faculty Advisor: George Anwar

Entry Number: 112 UP
AUTONOMOUS MICROMOUSE
By: Hailu Keremo, Harrit Bains, and Loon Phang
Electrical Engineering
Faculty Advisor: Dr. Hao Jiang

Entry Number: 113 UP
BEER BOT: AUTOMATIC BEER POURING MACHINE
By: Jonathan Hughes, Marvic Verzano, and Colin Muschette
Electrical and Mechanical Engineering
Faculty Advisor: Dr. Tom Holton

Entry Number: 114 UP
CNG LAWNMOWER
By: Christopher Fernandez, Paul Stelter, and Yeygeuiy Shkelev
Mechanical Engineering
Faculty Advisor: Dr. Kwok-Siong Teh

Entry Number: 115 UP
RAPID SYNTHESIS OF HIGH-ASPECT RATIO ZINC OXIDE NANOWIRES BY A CATALYST-FREE, LOW-POWER INDUCTIVE HEATING PROCESS
By: Joachim Pedersen
Mechanical Engineering
Faculty Advisor: Dr. Kwok-Siong Teh

Entry Number: 116 UP
HUMAN POWERED VEHICLE
By: Michael Diep, Ahmed Hassani, and Kevin Ng
Mechanical Engineering
Faculty Advisor: Dr. Kwok-Siong Teh
Entry Number: 117 UP
THE ELECTRIC MOTORCYCLE PROJECT
By: Oliver Burke and David Shirling
Mechanical Engineering
Faculty Advisor: Dr. Kwok-Siong Teh and Dr. A. S. Ed Cheng

Entry Number: 118 UP
JET ENGINE
By: Patrick Moore, Nicholas Ng, and Nick Certo
Mechanical Engineering
Faculty Advisor: Dr. Kwok-Siong Teh and Dr. A. S. Ed Cheng

Entry Number: 119 UP
PROGRESSIVE METAL STAMPING DIE
By: Richard Moore
Mechanical Engineering
Faculty Advisor: Dr. Kwok-Siong Teh