

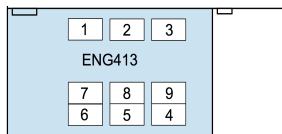
ENG 311

- 1 • MULTI-CORE SYSTEM-ON-A-CHIP SMART PEN • J. Bryan, E. Adalabu, J. Hou • Dr. G. Khan (M)
- 2 • SEATED POSTURE CONTROL REHABILITATION ON A MOVING PLATFORM • S. Ragunathan, H. Lee, M. Spitzer • Dr. Mai (B)
- 3 • GCOIN: INNOVATIVE GIFT CARDS • J. Poliarco, C. Vivo, G. Mikhail • Dr. Raahemifar (S)
- 4 • IOT ONLINE DIMMABLE HOUSEHOLD'S LED LAMPS • J. H. Santos, V. Siraco, C. Patel • Dr. Mohammadi (P)
- 5 • POWER-SILICON EFFICIENT SAR ANALOG-TO-DIGITAL CONVERTER FOR SENSORS • S. Rauf, C. Moreno, E. Alegre • Dr. Yuan (M)
- 6 • AUTOMATE • J. Eshoua, T. Wahid, A. Abdou • Dr. Krishnan (B)
- 7 • ALL-DIGITAL PHASE-LOCKED LOOP • U. Ubayasirinarayana, K. Palahumar, J. Bharduvaj • Dr. Yuan (M)
- 8 • REAL-TIME GO TRAIN VIBRATION MONITOR • N. Mike-Ebeye, A. Leung, K. Freire-Ayora • Dr. Yuan (C)
- 9 • SMART PARKING TOWER • W. Naoum, R. Sabbir, G. Rekhi • Dr. Raahemifar (M)

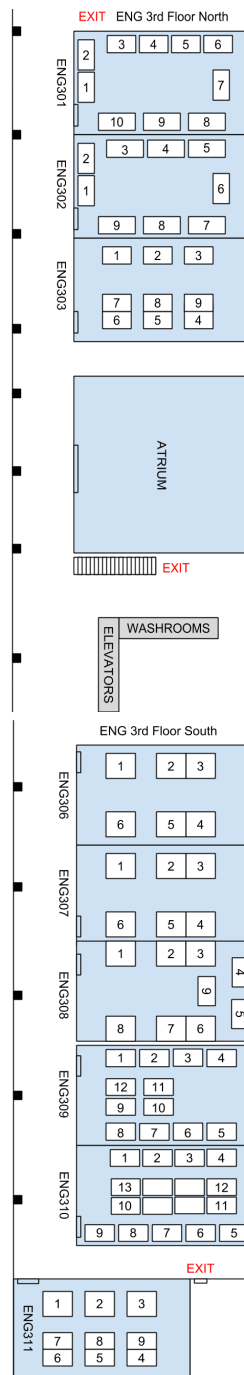
ENG 413

- 1 • SURGICAL HEADSET V3.0- INTEGRATED LED LIGHTING AND HD CAMERA SYSTEM • M. Yang, C. Santana, M. Uddin • Dr. V. Yang (B)
- 2 • POWER DISTRIBUTION IN A DATA CENTER AND MONITORING SYSTEM • A. Nawaz, S. Kiranchedaran, S. Simar • Dr. Cheung (P)
- 3 • SIMULATION ON SECURE ELECTRONIC TRANSACTION PROTOCOL (SET) • D. Desai, A. Chacko, A. Bhatt • Dr. T. Yang (S)
- 4 • ANATOMY TRACKER: PATIENT TRACKING USING AN INERTIAL MEASUREMENT UNIT • J. Kieda, K. M. Mopas, J. Sebastian • Dr. V. Yang (B)
- 5 • UNDERWATER VISIBLE LIGHT COMMUNICATION (VLC) FOR DROWNING PREVENTION • A. Movahedi, A. Cairns, A. Posner • Dr. Fernando (C)
- 6 • SMART STABILIZATION ROBOT • J. Solanki, K. Patel, V. Patel • Dr. Kassam (C)
- 7 • ACCESS CONTROL IN CLOUD COMPUTING • J. Grizzaffi, T. Jajj, R. Raghunathan • Dr. T. Yang (S)
- 8 • RECONSTRUCTIVE SURGICAL ASSISTANT V2.0 - USING 3D IMAGING • A. Tahlil, S. Romano, D. Abu-Hantash • Dr. V. Yang (B)
- 9 • WIRELESS STRESS DETECTOR VIA CELL PHONES • B. Mac, J. Crisolo, D. Le • Dr. Fernando (C)

ENG 413 MAP



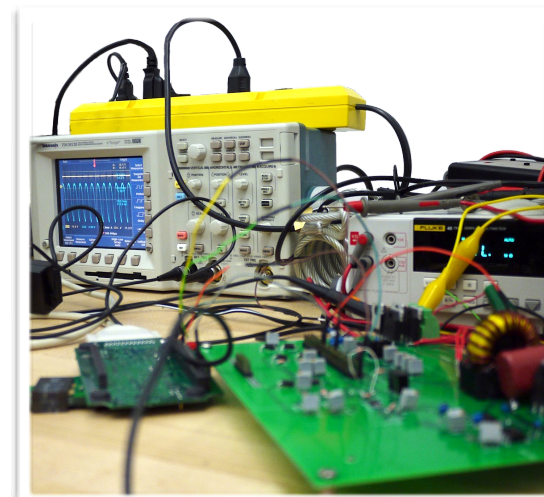
ENG 3RD FLOOR MAP



RYERSON ENGINEERING DAY 2018

10:00AM - 5:00PM, APRIL 27TH
3RD & 4TH FLOOR, 245 CHURCH ST.

ELECTRICAL, COMPUTER & BIOMEDICAL
CAPSTONE DESIGN PROJECTS













THE PROJECTS ARE LISTED BY ROOM NUMBER AND INCLUDE: THE BENCH NUMBER, PROJECT TITLE, STUDENT NAMES, THE FACULTY SUPERVISOR, PROJECT CATEGORY (SEE LEGEND BELOW).

CONSULT THE FLOORPLAN, FOUND ON THE BACK OF THIS GUIDE, TO LOCATE A SPECIFIC BENCH IN THE ROOM.










PROJECT CATEGORY LEGEND

- (B) BIOMEDICAL (C) COMMUNICATION (M) COMPUTER/MICROSYSTEMS
(P) POWER (R) ROBOTICS (S) SOFTWARE










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- 1 • AUTOMATED DEVICE FOR TRACHEAL TISSUE ENGINEERING • T. Cunha, M. Khan, A. Dhillon • Dr. Waldman 
- 2 • RAPID PROTOTYPED BIOREACTORS FOR CARTILAGE TISSUE ENGINEERING • N. Feizi, B. Yasabala, M. Rahman • Dr. Waldman 
- 3 • TARGET IDENTIFICATION AND TRACKING IN LOW LIGHT • J. Varghese, A. Omar, P. Moayed-Saffari • Dr. Fernando 
- 4 • SECURE E-VOTING • N. Riaz, S. Kulkarni, S. De Zoysa • Dr. T. Yang 
- 5 • 3D IMAGING FOR EXTERNAL VENTRICULAR DRAIN INSERTION GUIDANCE • M. Walters, B. Thevakumaran, J. Pontalba • Dr. V. Yang 
- 6 • ONLINE CONTROLLING/MEASURING THE INTENSITY OF HOME LIGHTING USING SHADE BLINDS • M. Licenji, M. Lamca, D. Srikanthan • Dr. Mohammadi 
- 7 • FOREST FIRE DETECTION SYSTEM • T. Gegan, Y. Werdi, R. Guzman-Bucheli • Dr. Venkatesh 
- 8 • SQL INJECTION ATTACK • S. Sivakanthan, P. Patel, A. Trivedi • Dr. T. Yang 
- 9 • PLATFORM TO MECHANICALLY STIMULATE CELLS IN 3D CULTURE • A. Lightstone, K. Kamran, M. Nejatian • Dr. Waldman 
- 10 • DISTRIBUTION SYSTEM FOR FINANCIAL CENTER • A. Kobelak, B. Khan, I. Qinami • Dr. Cheung 







ENG 302

- 1 • RESIDENTIAL-AREA ELECTRICITY DISTRIBUTION DESIGN • M. Portelli, J. Kalsi, M. Sultani • Dr. Cheung 
- 2 • SKIN LESION CLASSIFICATION SYSTEM • H. Khandker, A. Osman, A. Vijayaratnam • Dr. Grant 
- 3 • CLOUD-BASED VISUAL SLAM FRAMEWORK FOR MOBILE AR • V. Patel, A. Liu, A. Patel • Dr. N. Khan 
- 4 • COMMERCIAL ELECTRICAL DISTRIBUTION SYSTEM • B. Sirbovan, V. Garcha, A. Wang • Dr. Cheung 
- 5 • DERMATOLOGICAL TOOL FOR DIAGNOSING MELANOMA • C. Sanchez, H. Ishak, M. Johar • Dr. Grant 
- 6 • RECONFIGURABLE COMPUTING TO ACCELERATE ARITHMETIC OPERATIONS • P. Belvedere, C. Conte, A. Carter • Dr. Mekheil 
- 7 • SMART CONNECTED FARMS • B. Saoro, R. Kumar, Y. Cao • Dr. Raahemifar 
- 8 • FINCHAT • K. Veerasingam, A. Logeswaran, O. Hassan • Dr. Raahemifar 
- 9 • LOW COST MOBILE REPETITIVE STRAIN INJURY REHABILITATION • M. Gendy, S. Mahagavi, A. Navivala • Dr. Mai 







ENG 303

- 1 • POSTURAL CORRECTION SYSTEM WITH SENSOR-DRIVEN FEEDBACK • D. Mancuso, J. DiGregorio, A. Soave • Dr. Grant 
- 2 • ELECTRICAL DISTRIBUTION DESIGN OF A NUCLEAR GENERATING STATION • T. Munas, E. Syed, M. Zafar • Dr. Grant 
- 3 • BOOK RANKING SYSTEM • I. Elkadi, J. MacPherson, M. El-Falou • Dr. N. Khan 
- 4 • IMAGE MATCHING AND RECOGNITION USING OPENMP • M. Bitar, B. Marks, K. Raghubar • Dr. Mekheil 
- 5 • SOCIAL APPLICATIONS FOR D2D IN 5G NETWORK • J. Fantauzzi, N. Chan, K. Shivanand • Dr. Jaseemuddin 
- 6 • SMART HOME NETWORK • H. Mathiyalagan, S. Taha, E. Britto • Dr. Jaseemuddin 
- 7 • EMG CONTROLLED PROSTHETIC ARM WITH MICROCONTROLLER • A. Alqahtani, A. Asdi, O. El Bassiouni • Dr. Grant 
- 8 • WI-FI ACTIVITY ANALYSIS SYSTEM • J. Rebanal, H. Thai, M. Trinh • Dr. Sedaghat 
- 9 • FOOD POLICY VALUE SCHEME CALCULATOR INTERFACE • J. Vathanarajan, A. Chacko, K. Vimalarajah • Dr. Mai 








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- 1 • CONTINUOUS MONITORING OF HUMAN STRESS • A. Ramwala, M. Khan, A. Shami • Dr. Krishnan 
- 2 • NEUROMONITOR V4.0- SOMATOSENSORY EVOKED POTENTIAL AND ELECTROMYOGRAPHY MONITORING OF SPINAL CORD INTEGRITY • S. Phull, A. Bari, M.-A. Bahsoun • Dr. V. Yang 
- 3 • BURN INJURY IMAGE CLASSIFICATION SYSTEM • E. Joseph, D. Saini, H. Cho • Dr. Grant 
- 4 • DATA PROCESSING IN SUBSTATIONS FOR REMOTE MONITORING AND CONTROL • U. Wahidi, C. Li, X. Xu • Dr. Anpalagan 
- 5 • 3D PRINTED PROSTHETIC HAND WITH MICROCONTROLLER AND EMG SENSORS • D. Alqallaf, A. Mathai • Dr. Grant 
- 6 • GESTURE CONTROLLED SMART MIRROR • R. Siddiqui, A. Sukumaran, R. Suarez • Dr. N. Khan 

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- 1 • ACCURATE WIRELESS POSITIONING SYSTEM • T. Tohidi, B. Szant, M. Tiwari • Dr. Fernando 
- 2 • MICROGRID SETUP • S. Tariq, M. Amjad, S. Hussaini • Dr. Venkatesh 
- 3 • LITHIUM-ION BATTERY CELL TESTING SYSTEM • M. Pieprzycki, D. Iafrate, J. Bartol • Dr. Xu 
- 4 • EXTERNAL WIRELESS HARD DRIVE • M. Ahmed, D. Botelho, A. Rodov • Dr. Jaseemuddin 
- 5 • WIFI MESH NETWORK • P. Simmonds, S. Fon Tan, I. Kurobasa • Dr. Mohammadi 
- 6 • HIGH-EFFICIENCY WIRELESS POWER TRANSMISSION FOR PORTABLE ELECTRONIC DEVICES • N. Alam, Z. Khan, A. Riaz • Dr. Yuan 

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- 1 • DEMONSTRATE RECLOSERS • B. Ghous, R. Hassan, S. Jegatheswaran • Dr. Venkatesh 
- 2 • INTELLIGENT PHONE SYSTEM INTERFACE FOR THE PHYSICALLY CHALLENGED • D. Oh, H. Truong, J. Machado • Dr. Kassam 
- 3 • ELECTRIFICATION OF A BICYCLE • N. Strellyanny, N. Shahabuddin, M. Shakul • Dr. Xu 
- 4 • VEHICULAR NETWORK OF SMART CARS • D. Graham, C. Tam, N. Rajenteran • Dr. Jaseemuddin 
- 5 • TRAX-UNDERGROUND POSITION TRACKING • A. Miller, B. Wijeratne, M. Milligan • Dr. Raahemifar 
- 6 • AUTONOMOUS LANDING OF QUADCOPTER • T. Todorov, R. Hamblin, H. Raza • Dr. Kirischian 
- 7 • GRAPHIC USER INTERFACE FOR PROGRAMMABLE AC POWER SUPPLY • M. Parameswaran, R. Hassanein, S. Sharif • Dr. Xu 
- 8 • INTELLIGENT CUSTOMIZABLE STORAGE SYSTEM FOR DAILY-LIFE ORGANIZATION • F. Rizwan, I. Kontrec, E. Feghali • Dr. N. Khan 
- 9 • PARALLEL COMPUTER FOR WEATHER FORECASTING • D. Marchese, M. Smith, S. Gorsky • Dr. Mekheil 

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- 1 • SMART HOME GARDEN • N. Cicek, E. Giladov, S. Roy • Dr. Anpalagan 
- 2 • D2D (DEVICE TO DEVICE) SOCIAL COMMUNICATIONS SORTED BY GEOLOCATION AND TAGS • M. Ellenbogen, A. Levy, P. Rajabian • Dr. N. Khan 
- 3 • STOCK FORECASTING USING PARALLEL COMPUTING • S. Bystrova, J. Lad, A. Rakytenko • Dr. Mekheil 
- 4 • INTELLIGENT VEHICLE PARKING AND DATA MANAGEMENT SYSTEM • J. Arsoovski, L. Lyjak, M. Kilzi • Dr. Anpalagan 
- 5 • "FOLLOW ME" ROBOT FOR ASSISTED LIVING • H. Lin, M. Tayyub, D. Patel • Dr. N. Khan 
- 6 • INTERNET OF THINGS FOR SMART BUILDING MANAGEMENT • Y. Pushpanathan, R. Bigelow, N. Manivannan • Dr. Anpalagan 
- 7 • BATTERY MONITORING SYSTEM • W. Mosharraf Nirjhor, S. Bhatt, T. Anjum • Dr. Venkatesh 
- 8 • IOT ONLINE MEASURING THE ENERGY CONSUMPTION OF A HOME OUTLET • B. Pramachandiran, N. Ratnarajah, O. Zaganjori • Dr. Mohammadi 
- 9 • CLOUD SERVICE BROKER FOR MULTI-CLOUD • E. Shapovalov, S. Chu • Dr. Jaseemuddin 
- 10 • SMART MIRROR FEATURING GPU TRAINED FACIAL RECOGNITION • M. Ibrahim, J. Elias, G. Fung • Dr. Mekheil 
- 11 • SMART STOCK BOT • L. Marcos, H. Mallah, M. Patel • Dr. Raahemifar 
- 12 • MICRO-PAYMENT FOR SMART SENSORS- A STEP TOWARDS SMARTER HOMES • D. Ahmed, N. Fazal, M. Rana • Dr. Mohammadi 

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- 1 • V2G BATTERY CHARGER FOR ELECTRICAL VEHICLES • K. Dindyal, Z. Arsala, D. Tran • Dr. Xu 
- 2 • DESIGN AND PROTOTYPING A NOC BASED SYSTEM-ON-CHIP FOR MULTIMEDIA APPLICATIONS • S. Delong, S. Salazar, R. Stefan • Dr. G. Khan 
- 3 • INTELLIGENT MOUSE • A. Chau, A. Rahman • Dr. Kassam 
- 4 • RUPUNCH • S. Sammut, G. Arezza, M. Nigro • Dr. Krishnan 
- 5 • AUTONOMOUS VEHICLES • S. Jagannathan, J. Parekkattil, A. Isaac • Dr. Yuan 
- 6 • BATTERY MANAGEMENT SYSTEM FOR MULTI-CELL MODULES BATTERY (BMS) • R. Gheorghe, K. Griller, A. Lejaj • Dr. Xu 
- 7 • CONNECTED HEALTHCARE: DEMENTIA MONITORING AND EVALUATION • M. Azhar, N. Baig, S. Dey • Dr. Krishnan 
- 8 • INDUSTRIAL-PLANT ELECTRICITY DISTRIBUTION DESIGN • D. Derderian, K. Martinez, R. Bisnar • Dr. Cheung 
- 9 • GESTURE CONTROL ROBOTIC HAND • M. Kincal, R. Diezmos, R. Tan • Dr. Yuan 
- 10 • CYBER SECURITY APPLICATIONS OF DATA ENGINEERING • K. Chan, M. Herawi, Q. Xiong • Dr. T. Yang 
- 11 • VEHICLE TRACKING, PROCESSING AND ALERT SYSTEM • H. Mathialagan, C. Nadarajah, B. Balachandran • Dr. Anpalagan 
- 12 • GROUP KEY MANAGEMENT: CKCS • A. Ratnaveluppillai, Y. Wang, A. Kandiah • Dr. T. Yang 