REGISTERED SENIOR DESIGN TEAMS

101
Epicardial Pacemaker Fixation System
Team Members Mareah Meulemans, Arick Lagowski, Brent Myers, Elyssa Furmanski and Tiffany Moore, Biomedical Engineering
Advisor Rupak Rajachar, Biomedical Engineering

102
Geomagnetically-Induced Current Monitoring
Team Members Rion Mott, Evan Bajek, Michael Spenle and Daryl Bennet, Electrical Engineering
Advisor John Lukowski, Electrical and Computer Engineering

103
Pickup Truck Bed Side-Access Design
Team Members Corey Downing, Ben Turner, Jeremy Mims, Stuart Montgomery and Jordan Kubista
Mechanical Engineering
Advisor Charles Van Karsen, Mechanical Engineering-Engineering Mechanics

104
Dynamometer Calibration Device
Team Members Kristopher Benaglio, Christopher DeGroot, Adam Deibler, Kenneth Smith, Mechanical Engineering
Advisor Paul van Susante, Mechanical Engineering-Engineering Mechanics

105
Wood Chipper Chute Optimization
Team Members Cameron Knapp and Dirk Van Appledorn, Mechanical Engineering Technology
Advisor Linda Wanless, School of Technology

106
Enhanced High-G Fuze Test Rig Design
Team Members Beau Barber, Brian Haupt, Ivan Niemi, Brian Page and David Waters
Mechanical Engineering
Advisor Charles Van Karsen, Mechanical Engineering-Engineering Mechanics

107
MacLean-Fogg Component Solutions - Mine Bit Manufacturing Process
Team Members Joseph Jendrusina, Sean Kuchta, Michael Larson and Tyler Nault, Mechanical Engineering
Advisor William Endres, Mechanical Engineering-Engineering Mechanics

108
Impact of Grain Boundary Misorientation on the Mechanical Properties of PWA 1480 Bicrystals
Team Members Alex Reinl, Emily Veltman, Jenna Proctor and Laura Jewett
Materials Science and Engineering
Advisor Walt Milligan, Materials Science and Engineering
109
Improved Parts Transportation System
Team Members Timothy Steinmetz, Nicholas Zochowski, Zachary Karsten and Jun Zou
Mechanical Engineering
Advisor Kevin Johnson, Mechanical Engineering-Engineering Mechanics

110
Design and Development of an Automated Stacker for Highway Products of Nucor Steel Corporation
Team Members Logan Edwards, Sean Hayes, Stephen Penny, Electrical Engineering Technology; and Shashank Lakshmikanth, Mechanical Engineering
Advisor ??

111
GE Aviation Cutter Tool Performance
Team Members Jacob Demarais and Garrett Dubie, Mechanical Engineering; Justin Nichols, Mechanical Engineering Technology; and Robert Lippus, Materials Science and Engineering
Advisor Dan Seguin, Materials Science and Engineering

112
MacLean-Fogg Automated Parts Counting System
Team Members Galina Berestetsky, Robert Dudek, Kelsey O'Brien and Luke Roberts, Mechanical Engineering; and Andrew Harmon, Electrical Engineering
Advisor Charles Van Karsen, Mechanical Engineering-Engineering Mechanics

113
Perfusion Bioreactor Chamber with Oxygen Sensing Capabilities
Team Members Rebecca Whitney, Benjamin Weyland, Jessica Walitalo; Biomedical Engineering; and Kimberly D'Augustino.
Materials Science and Engineering
Advisor Feng Zhao, Biomedical Engineering

114
Smart Grid Home Energy Management Application
Team Members Matthew Alessi, Benjamin Ginnow, Amanda Rueff, Noah Hagman, Electrical Engineering; Andrew Hanson, Computer Engineering
Advisor Don Moore, Electrical and Computer Engineering

115
Welding Parameter Refinement for 3D Metal Printing
Team Members Zachary Boyden and Mu Yuan, Materials Science and Engineering; Michael Buhr and Martin Schaub, Mechanical Engineering
Advisor Tom Wood, Materials Science and Engineering

116
User Interface Design for Deep Brain Stimulation Implants in Parkinson's Patients
Team Members Hao Zhan, Jessica Thomeke, Keegan Yates, Hunter Bartosik, Joseph Bolsenga; and Timothy Bradt, Computer Engineering
Advisor Keat Ghee Ong, Biomedical Engineering

117
Substation Automation Standards
Team Members Marc Kohler, Adam Kovach, Britta Anderson, William Gagnon and Dong Xia, Electrical Engineering
Advisor John Lukowski, Electrical and Computer Engineering

118
Catheter Test System Design Improvements
Team Members Cameron Allen, Kaitlyn Boelter, Mitchell Kirby, Kimberly Stanke and Jonathon Wheatley, Biomedical Engineering
Advisor Sean Kirkpatrick, Biomedical Engineering
Software Tool to Develop Equivalent Circuit Motor Parameters
Team Members Zack Browne, Holden Hunt, Michael Martin, Matt Militello, Electrical Engineering
Advisor Trever Hassell, Electrical and Computer Engineering

Drive Motor in Dowel Agitation Design Bissell
Team Members Molli Andor, Aaron Dupre, Erik Lemmen and Teng Ma, Mechanical Engineering;
Kyle Stankowski, Electrical Engineering
Advisor Eddy Trinklein, Mechanical Engineering-Engineering Mechanics

Tilt Test Enhancements
Team Members Samantha Wright, Michael Briseno, Christopher Fisher, Jari Sague and Jasmine Jauquet, Biomedical Engineering
Advisor Orhan Soykan, Biomedical Engineering

Composite Rear Suspension- SAE Baja
Team Members Richard Stevens, Alexander Miltenberger, Patrick Holzer, Mechanical Engineering;
Matthew Brettschneider Mechanical Engineering Technology
Advisor Kevin Johnson, Mechanical Engineering-Engineering Mechanics

John Deere Intake Manifold Design
Team Members Rebekah Koning, Nicholas Latusek, Jonathon Maley and Ethan Rautio. Mechanical Engineering
Advisor Jaclyn Johnson, Mechanical Engineering-Engineering Mechanics

B-pillar Revision Project
Team Members David Daavettila, Nicholas Jensen, Tyler Kuyper, Paul Roehm and Yakun Wang, Mechanical Engineering Technology
Advisor Paul van Susante, Mechanical Engineering-Engineering Mechanics

Design of a Production Capable Materials Test to Determine the Toughness of Cast Mill Components
Team Members Andrea Paul, Nathaniel Musser, William Price and Robert Cooley, Materials Science and Engineering
Advisor Paul Fraley, Materials Science and Engineering

IC Engine Powered One Man Hovercraft
Team Members James Henris and Matthew Benzik, Mechanical Engineering Technology
Advisor John Irwin, School of Technology

Treatment of intra-cranial aneurysms utilizing flow diversion
Team Members Kathleen Ikeda, Alexandria Bartlett, Alexis Alvarez, Mark Keranen and Kyle Johnston, Biomedical Engineering
Advisor Jingfeng Jiang, Biomedical Engineering

Compliance Keweenaw: Aspirus Keweenaw Hand-washing Compliance System
Team Members Anna Waller, Jannah Brandt, Drew Markel, Creighton Bradley and Rebecca Manshaem,
Biomedical Engineering
Advisor Bruce Lee, Biomedical Engineering

Kimberly Clark Smart Bin
Team Members Louis Bersine, Jake Fiebing and Yuancheng He, Electrical Engineering;
Kaiquan Wang, Mechanical Engineering
Advisor Don Moore, Electrical and Computer Engineering
Front-End Protection for Data Acquisition
Team Members Sylvia Ferragut, Caleb Wright, Ben Veltman, Electrical Engineering; Matthew Zawisza, Computer Engineering
Advisor Duane Bucheger, Electrical and Computer Engineering

System to Measure the Effectiveness of a Rail Shunt
Team Members Samuel Scott, Alexander Pate, Frank BeFay, Sean Massey, Electrical Engineering
Advisor Duane Bucheger, Electrical and Computer Engineering

School of Technology Venturiometer
Team Members Nathan Manderfield, Alex Tomasoski, Mechanical Engineering Technology
Advisor Sunil Mehendale, School of Technology

Stamping FEA Optimization
Team Members Kara Bakowski, Jacob Braykovich, Alexander Kampf, Zachary Morgan
Mechanical Engineering
Advisor Steve Hackney, Materials Science and Engineering

Heat Recovery Steam Generator Improvement
Team Members David Bayer, Jordan Jackola, Jani Lane, Michael Pristov, Mechanical Engineering
Advisor Jaclyn Johnson, Mechanical Engineering-Engineering Mechanics

Universal Parts Feeder for Nut Tapping Equipment
Team Members Izaak Lauer, Colton Wesoloski, Gaosihao Qiu, Jake Bohl, Michael Kita
Mechanical Engineering
Advisor Radheshyam Tewari, Mechanical Engineering-Engineering Mechanics

Visualization of Biofilms on Orthopedic Implants
Team Members Kaleb Horn, Kyle Troutt, David Sproule, Maxwell Hill, Biomedical Engineering
Advisor Megan Frost, Biomedical Engineering

MAP Determination of Intake Cam Centerline, Phase II
Team Members Paul Thomas, David Entingh, Robert Roush, Computer Engineering
Advisor Duane Bucheger, Electrical and Computer Engineering

Chrysler 300 Split Tailgate
Team Members Kelly Shanahan, Joshua Yagley, Alex Bancroft, Jerad Marble and Parry Ragland
Mechanical Engineering
Advisor Kevin Johnson, Mechanical Engineering-Engineering Mechanics

Surgical Power Tool Irrigation Pump Controller
Team Members Nathan Tromp, Robert Arden Karl Schlicker, Mechanical Engineering; and Grant Smith, Electrical Engineering
Advisor Eddy Trinklein, Mechanical Engineering-Engineering Mechanics

dSpace Hardware in the Loop Development and Testing
Team Members Chen Li, Matthew Hooker, Brian Knapp and Alexandra Roche, Electrical Engineering
Advisor Jeff Burl, Electrical and Computer Engineering
141
Mind Trekkers Trebuchet
Team Members Jebbediah Doebel, Marshall Fox and Michael Gorman, Mechanical Engineering Technology
Advisor David Wanless, School of Technology

142
Wood Gasification
Team Members Matthew Gasco, Nicholas Samokyszyn and Richard Thorstenson, Mechanical Engineering Technology
Advisor David Wanless, School of Technology

143
Low Voltage Piezoelectric Bone Sculptor
Team Members James Berry, Electrical Engineering; Michael Braun, Computer Engineering; Alexandra Cereska, Janelle Rupkalvis, Biomedical Engineering; and Lee Southerton, Eric Wilkening, Mechanical Engineering
Advisor Radheshyam Tewari, Mechanical Engineering-Engineering Mechanics

144
Automatic Loading and Unloading Gravity Flow Rack System
Team Members Jeffrey Baker, Andrew Crepeau, Samantha Kallman, Clay Sekely and Halley Shawbitz, Mechanical Engineering
Advisor Paul van Susante, Mechanical Engineering-Engineering Mechanics

145
Aluminum Corrosion Study - Automotive Electrical Systems
Team Members Annie LeSage, Jacob Gerdt, Kyle Myszka and Alexandra Glover, Materials Science and Engineering
Advisor Steve Kampe, Materials Science and Engineering

146
Bearing Adjuster Lock Ring Test Rig
Stephen A Whalen, Nicolas Lord, Christian Bersano and Jordon Locher, Mechanical Engineering
Advisor Kevin Johnson, Mechanical Engineering-Engineering Mechanics

147
River Outflow Power Upgrade
Team Members Brett Dupras, Anthony Russ, Donald Straughen, Erienne Claxton and Kyle Chomic
Electrical Engineering Technology
Advisor Weican (Vincent) Xiao, School of Technology

148
End of Line Noise Test Certification System
Team Members Tyler Giddens, Mechanical Engineering; Max Moeller, Jake Bell, Electrical Engineering; and Nick Oshaben, Computer Engineering
Advisor Jeff Burl, Electrical and Computer Engineering

149
Pro-Healing Arterial Graft Scaffold Design
Team Members Thomas Brown, Kristin Flickinger, Thaine Fuller, Kyle Jansen and Daniel Radke, Biomedical Engineering
Advisor Jeremy Goldman, Biomedical Engineering

150
E357 Alloying To Increase Elongation and Maintain Mechanical
Team Members Jordan Pontoni, Calvin Nitz, Shane Anderson and Austin DePottey, Materials Science and Engineering
Advisor Tom Wood, Materials Science and Engineering

151
Chrysler 300 Split Decklid
Team Members Jerad Marble, Josh Yagley, Alex Bancroft, Kelly Shanahan and Parry Ragland, Mechanical Engineering
Advisor Kevin Johnson, Mechanical Engineering-Engineering Mechanics
An Evaluation of Production Potential in the Caney Shale Formation, Anadarko Basin, Oklahoma
Team Members Stephanie Dow, Hannah Altscheffel, Christopher Carefoot and Elizabeth Seiberlich, Geological Engineering
Advisor John Gierke, Geological and Mining Engineering and Sciences

Olathe Lawn Sweeper Finger Redesign
Team Members Anthony Hella and Jonathan Sanders
Mechanical Engineering Technology
Advisor Mark Johnson, School of Technology

Precision Machining Process Design
Team Members Dustin Cochrane, Travis Teall, Michael Dzwigalski and Cory Calkins, Mechanical Engineering
Advisor William Endres, Mechanical Engineering-Engineering Mechanics

Back Gauging
Team Members Alex Hischke and Macrae Parks, Mechanical Engineering Technology
Advisor Mark Johnson, School of Technology

REGISTERED ENTERPRISE TEAMS

Alternative Energy Enterprise
Team Leader #1 Kayla Warsko, Chemical Engineering
Advisor Jay Meldrum, Keweenaw Research Center

Formula SAE
Team Leader #1 Dan Burg, Mechanical Engineering
Advisor

Green Campus Enterprise
Team Leader #1 Samantha Olson, Environmental Engineering
Advisor Christopher Wojick, Civil and Environmental Engineering

Husky Game Development
Team Leader #1 Mitch Davis, Computer Science
Advisor Scott Kuhl, Computer Science

Blue Marble Security
Team Leader #1 Rebecca Gast, Electrical Engineering
Advisor Glen Archer, Electrical and Computer Engineering

Aerospace Enterprise
Team Leader #1 Andrew Conley, Mechanical Engineering
Advisor L. Brad King, Mechanical Engineering-Engineering Mechanics

Cin/Optic Communication and Media
Team Leader #1 Alex Flannery, Sound Design
Advisor Erin Smith, Humanities
208
ITOxygen
Team Leader #1 Derek Daniels, Computer Network and System Administration
Advisor Russell Louks, School of Business and Economics

209
Wireless Communication Enterprise
Aaron VanGills, Computer Engineering
Christopher Cischke, Electrical and Computer Engineering

210
Supermileage Systems Enterprise
Team Leader #1 Patrick Loew, Mechanical Engineering
Advisor Rick Berkey, Institute for Leadership and Innovation

211
Blizzard Baja Enterprise
Team Leader #1 Garrett Mitchell, Mechanical Engineering
Advisor Kevin Johnson, Mechanical Engineering-Engineering Mechanics

212
Consumer Product Manufacturing
Team Leader #1 Paul Hagadone, Chemical Engineering
Advisor Sean Clancey, Chemical Engineering

213
General Expedition and Adventure Research (GEAR)
Team Leader #1 Kent VanSickle, Mechanical Engineering
Advisor Brett Hamlin, Engineering Fundamentals

214
Advanced Metalworks Enterprise
Team Leader #1 Tessa Burgess, Materials Science and Engineering
Advisor Paul Sanders, Materials Science and Engineering

215
International Business Ventures
Team Leader #1 Leslie LaLonde, Biomedical Engineering
Advisor Robert Warrington, Institute for Leadership and Innovation

216
Robotics Systems Enterprise
Team Leader #1 Kealy Smith, Electrical Engineering
Advisor Aleksandr Sergeyev, School of Technology

217
Clean Snowmobile Challenge
Team Leader #1 William Gielda, Mechanical Engineering
Advisor Jason Blough, Mechanical Engineering-Engineering Mechanics

218
Blizzard Baja Enterprise
Team Leader #1 Jake Radtke, Mechanical Engineering
Advisor Kevin Johnson, Mechanical Engineering-Engineering Mechanics

219
Efficiency through Engineering and Construction (ETEC)
Team Leader #1 Matthew Santti, Construction Management
Lynn Artman, School of Technology
Forestry and Environmental Resource Management (FERM)
Team Leader #1 Bryce Jauquet, Forestry
Advisor James Schmierer, School of Forest Resources and Environmental Science

BoardSport Technologies
Team Leader #1 Ryan Grady, Mechanical Engineering
Advisor Ibrahim Miskioglu, Mechanical Engineering-Engineering Mechanics

Humane Interface Design
Team Leader #1 Stephen Radachy, Computer Science
Advisor Robert Pastel, Computer Science