# New Mexico State University
## College of Engineering

**Dr. Ricardo Jacquez, Dean**
**Dr. Martha Mitchell, Associate Dean for Research**

as of 1/04/2014

| Engineering | Name | Email | Area of Specialization (s) |
|---|---|---|---|
| Electrical Engineering | Borah, Deva | dborah@nmsu.edu | |
| | Boucheron, Laura | lboucher@nmsu.edu | Image Processing, including feature extraction & selection, object-level analysis, and incorporation o f temporal information; Pattern Recognition and Machine Learning; Interdisciplinary Applications of Image and Signal Processing; Signal Processing, including speech enhancement and coding |
| | Brahma, Sukumar | sbrahma@nmsu.edu | Wide Area Protection; Wide Area Protection; Digital Relaying |
| | Cho, Sang Yeon | sangycho@nmsu.edu | Nanoscale devices for photonic applications; Optical Bio/Chemical Sensors; Advanced high-resolution microscopy system; Optoelectronic Devices including photodiodes and lasers. |
| | Cook, Jeanine | jecook@nmsu.edu | Microarchitecture simulation techniques, performance modeling and analysis and Microarchitectural power optimizations |
| | Creusere, Charles | ccreuser@nmsu.edu | Digital Signal Processing for audio, image, and video; Compressive Sensing/Sparse Reconstruction for LIDAR and continuously streaming signals; Communications related to space missions |
| | Dawood, Muhammed | dawood@nmsu.edu | EM Propagation: Precursor-based Information transmission/reception and Imaging through Dispersive media – soil, foliage, walls, and biological tissues; Antenna modeling, synthesis, and fabrication; Ultra wideband RF/Microwave active and passive systems; Advanced Signal Processing Techniques – for Radar/SAR and adaptive beam-forming |
| | Deleon, Phillip | pdeleon@nmsu.edu | Digital speech processing incl. speaker recognition, speech enhancement; Pattern recognition and machine learning incl. Bayesian classifiers, sparse kernel machines, and applications of PRML to speech |
| | Furth, Paul | pfurth@nmsu.edu | Integrated Power Management Circuits:  Low-Dropout Voltage Regulators; Multi-Stage Amplifiers and  Compensation Techniques;  CMOS Image Quality Sensors; Adaptive Optics Sensors; Embedded systems incl. real-time DSP and mobile device programming; Graphics processing unit (GPU) computing for DSP |
| | Huang, Hong | hhuang@nmsu.edu | Wireless Sensor Networks; Modeling and Simulation of Wireless Networks; Network Security |
| | Kliewer, Joerg | jkliewer@nmsu.edu | Theoretical foundations of communication systems, information and coding theory. |
| | Liu, Wenxin | wliu@nmsu.edu | Smart Microgrid And Renewable Technology |
| | Ng, Kwong | ngnsr@nmsu.edu | Computational Electromagnetics; Bioelectromagnetics; Source and Structure Imaging; Antenna and Microwave System |
| | Oklobdzija, Vojin | vojin@nmsu.edu | VLSI, Low-Power and Design, Microprocessor Design, Computer Arithmetic, Computer Architecture |
| | Paz, Robert | rpaz@nmsu.edu | Robotics & Automation, Reduced Gravity Simulation, Embedded Systems, Robust Control Systems, Source and Structure Imaging; Antenna and Microwave System |
| | Prasad, Nadipuram | naprasad@nmsu.edu | Control Systems and Power |
| | Ramirez-Angulo, Jaime | jairamir@nmsu.edu | Design and test of high performance and low voltage analog and mixed signal VLSI Systems |
| | Ranade, Satishkuma | sranade@nmsu.edu | Power Systems Modeling , Simulation, and Control; Renewable Energy Integration in Power Systems; Microgrids; Applications of Power Electronics |
| | Rosenthal, Andrew | arosenth@nmsu.edu | Solar Energy Technologies |
| | Stochaj, Steven | sstochaj@nmsu.edu | Solar Energetic Particles; Cosmic Ray Physics; Neutron Detectors; Small Satellite Design |
| | Tang, Wei | wtang@nmsu.edu | Analog and Mixed Signal Integrated Circuit Design; Radio Frequency IC Design Wireless Communication; Biosensors; Application of Biomedical Circuits and Systems |
| | Voelz, David | davvoelz@nmsu.edu | Spectral & Polarimetric Sensing; Optical Propagation through Atmospheric Turbulence; Free Space Optical Communications |

| Department | Name | Email | Research Areas |
|---|---|---|---|
| **Chemical Engineering** | Andersen, Paul | pka@nmsu.edu | Chemical Process Simulation, Transport in Electrochemical Systems |
| | Deng, Shuguang | sdeng@nmsu.edu | Nanostructured Materials, Hydrogen and Methane Storage through Clathrate Formation, Gas Separation and Purification, Membrane Distillation for Brackish Water Desalination, Potable Water Purification, Air Pollution Control |
| | Houston, Jessica | jph@nmsu.edu | *Flow-cytometry*: analysis, sorting, applications thereof; Time-dependent photonics: fluorescence decay kinetics, phase-filtering; Biomaterials: reporters for Raman, Raleigh scatter, and Cytometric molecular imaging: in vivo diagnostic systemsfluorescence; Image and digital signal processing: DAQ and computational methods |
| | Luo, Hongmei | hluo@nmsu.edu | Functional oxide, nitride, and nanocomposite thin film heterostructures for microelectronics, optoelectronics, magnetism, superconductors, catalysts, sensors, and energy applications; Nanostructured materials (nanoparticles, nanowires, nanotubes, and mesoporous materials) for magnetism, catalysts, sensors, water splitting, battery, and solar cell applications; Electrochemical deposition, sol-gel, polymer-assisted deposition, self-assembly, hydrothermal. |
| | Manz, Thomas | tmanz@nmsu.edu | Materials Science, Energy Applications, Solid State Systems |
| | Martinez, Julio | julmart@nmsu.edu | Nanotechnologies; BioSensing Applications; Organic Photovoltaics |
| | Rockstraw, David | drockstr@nmsu.edu | Synthesis and Characterization of Activated Carbon from Lignocellulosic Raw Materials; Synthesis of Potassium Ferrate and its Application to Environmental Systems; Flash Pyrolysis of solutions to form metallic nanoparticles |
| **Mechanical Engineering** | Butcher, Eric | eab@nmsu.edu | Spaceflight Dynamics, Estimation, and Control; Nonlinear Structural Dynamics & Vibrations; Time-Varying, Time-Delayed, and Stochastic Stability & Control Robotics and Controls |
| | Drach, Borys | borys@nmsu.edu | Analytical, computational and experimental solid mechanics; composite and biocompatible materials; numerical methods in engineering |
| | Cai, Chunpei | ccai@nmsu.edu | Fluid Dynamics; Rarefied Gas Dynamics, Gaskinetic CFD, Hypersonic Flows |
| | Choo, Vincent | vchoo@nmsu.edu | Solid Mechanics & Materials - Polymers and Composite Materials |
| | Conley, Edgar | econley@nmsu.edu | Solid Mechanics & Materials; Wind Energy |
| | Donaldson, A. | bdonalds@nmsu.edu | Thermal Science & Energy; Experimental Methods |
| | Garcia, Gabe | gabegarc@nmsu.edu | Experimental Solid Mechanics |
| | Hardee, Harry | hhardee@nmsu.edu | Thermal Science & Energy; Geophysical Instrumentation |
| | Kota Venkata | kkota@nmsu.edu | Energy-efficient Thermal & Fluid Transport, Energy Systems and Components, Thermal Management, Flow Control & Drag Reduction |
| | Lee, Young | younglee@nmsu.edu | Aeroelasticity & Fluid Structure Interaction |
| | Leslie, Ian | ileslie@nmsu.edu | Thermal Science & Energy; Renewable energy and modeling |
| | Ma, Ou | oma@nmsu.edu | Dynamics & Vibrations; Robotics and Controls |
| | Park, Young | ypark@nmsu.edu | Design Optimization, Computational Solid Mechanics |
| | Sanyal, Amit | asanyal@nmsu.edu | Nonlinear Control and Dynamics, Geometric Mechanics, Nonlinear Estimation, Aerospace Control, Mobile Robots |
| | Sevostianov, Igor | igor@nmsu.edu | Micromechanics of Materials, Biomechanics |
| | Shashikanth, Banavara | shashi@nmsu.edu | Theoretical Fluid Mechanics, Dynamical Systems and Control |
| | Shu, Fangjun | shu@nmsu.edu | Experimental Fluid Dynamics, Bio-inspired Flow, Biofluidics, Microfluidics, Turbulent Flow, Optical Metrolog |
| | Wei, Mingjun | ytnmsu@nmsu.edu | Computational Fluid Dynamics, Aeroacoustics, Control and Optimization |
| **Civil and Geological Engineering** | Bandini, Paola | paola@nmsu.edu | Geotechnical Engineering |
| | Bawazir, A. | abawazir@nmsu.edu | Water Resources Engineering |
| | Cortes, Douglas | dcortes@nmsu.edu | Geotechnical Engineering |
| | Idriss, Rola | ridriss@nmsu.edu | Structural Engineering |
| | Jauregui, David | jauregui@nmsu.edu | Structural Engineering, Bridge Inspection |
| | King, James | jpking@nmsu.edu | Water Resources Engineering |
| | Newtson, Craig | newtson@nmsu.edu | Structural Engineering |
| | Nirmalakhandan, Nagamany | nkhandan@nmsu.edu | Environmental Engineering |
| | Papelis, Charalambos | lpapelis@nmsu.edu | Environmental Engineering |
| | Samani, Zohrab | zsamani@nmsu.edu | Water Resources Engineering |
| | Weldon, Brad | bweldon@nmsu.edu | Structural Engineering |
| | White, Kenneth | krwhite@nmsu.edu | Structural Engineering, Bridge Inspection |

| | Name | Email | Research Areas |
|---|---|---|---|
| **Ci** | Xu, Pei | pxu@nmsu.edu | Environmental Engineering |
| **Industrial Engineering** | Engi, Dennis | engi@nmsu.edu | Risk analysis, dynamic simulation, optimization, intelligent agents, decision theory, and game theory. |
| | Huang, Yu-Li | yhuang@nmsu.edu | Process improvement in Health Care delivery systems including Outpatient Scheduling System, Urgent Care/ Emergency Systems, and Operation Room Scheduling System |
| | Kammerdiner, Alla | alla@nmsu.edu | Combinatorial optimization and application of data mining to health care, biomedicine and human factors. |
| | Mullen, John | jomullen@nmsu.edu | Quality and continuous improvement, Large scale systems, Engineering and public policy |
| | Pines, Edward | epines@nmsu.edu | Educational Research |
| | Sohn, Hansuk | hsohn@nmsu.edu | Network design, logistics, and supply chain management |
| | Valles-Rosales, Delia | dvalles@nmsu.edu | Optimization of manufacturing processes to protect the environment; reducing manufacturing costs and scrap, designing and planning the best facilities; reducing process cycle time; selecting the appropriate raw material; facilitating collaboration among companies and academia; reducing fatigue among employee |
| **Engineering Technology** | Beasley, Jeffrey | jbeasley@nmsu.edu | Electronic communication systems, and VLSI design, simulation and test |
| | Boje, Carmen | cboje@nmsu.edu | Computer Newtworks and Multimedia |
| | Dhar, Ashutosh | asdhar@nmsu.edu | Surveying engineering |
| | Elaksher, Ahmed | elaksher@nmsu.edu | |
| | Frank, Steven | sfrank@nmsu.edu | Plane surveying, boundary law, subdivision design, and land information systems |
| | Hyde, Anthony | ahyde@nmsu.edu | |
| | Jenkins, Thomas | tjenkins@nmsu.edu | Renewable energy, digital systems |
| | Jiang, Ruinian | rjiang@nmsu.edu | Transportation and structural engineering research, design, construction, and management |
| | Kelly, Lynn | lskelly@nmsu.edu | Information and Communication Technology (ICT) |
| | Morrell, Michael | mgm@nmsu.edu | Database Design, Internet and Data Security |
| | Nogales, Luke | luke@nmsu.edu | Product Development, Consumer Research, Disruptive Innovation, Design Thinking, Collaboration, Consumer Goods, Recruiting, Modeling, Education, Consulting |
| | Ricketts, Craig | crickett@nmsu.edu | Applied Thermodynamics, Heat and Transfer Applications, Fluid Technology |
| | Sassenfeld, Rolfe | rolfe@nmsu.edu | |
| | Stevens, Kenny | kstevens@nmsu.edu | |
| | Wurm, Kurt | kwurm@nmsu.edu | Surveying engineering |