

Tech-Talks Research: New Faculty

August 21, 2014

Leyre Alegre lalegref@mtu.edu



Who I am:

- Spanish Lecturer Humanities Department
- Spain
- Previous job: Spanish Lecturer @ UofM

Areas of interest:

- Second Language Acquisition
- Spanish for the professions
- Spanish for Heritage Learners



Leyre Alegre



- I can contribute with:
 - Hispanic cultural diversity awareness
 - Modern Languages in a STEM university
 - Advising Develop the STEM + 2nd language
 Student
 - La Peña Gathering to practice Spanish





Carlos M. Amador (Department of Humanities)

Assistant Professor of Spanish and Culture Studies

Specialty Areas

- Spanish and Culture Studies
- Literature, Film, and the Visual Arts as models for ethical decision-making and political discourse
- Roles of Animals and Ecology in Latin America in history and contemporary culture.
- Language teaching across the disciplines



Liverpool (2008) dir.Lisandro Alonso Argentina



Coat of Arms-Chile



Carlos M. Amador (Department of Humanities)

- I can contribute by
 - Teaching critical cultural literacy
 - Bridging the distance between the "two cultures" of the humanities and the sciences
 - Offering a global view of the cultures of the Americas
 - Teaching Spanish to address the needs of specific professions across the university
 - Teaching research methods in Humanities
 - Teaching research design





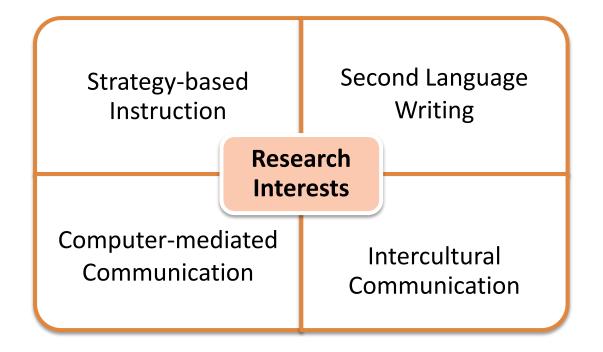
Sara Amani Lecturer & Assistant Director, IESL, Humanities

samani@mtu.edu



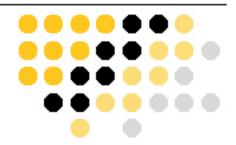
My educational background:

PhD in Applied Linguistics (University of Auckland, NZ), M.A. in TEFL (Ferdowsi University, Iran), B.A. in English Language and Literature (Ferdowsi University, Iran)





My contribution to IESL and TESOL:



- Teaching general/academic English
 - Improving students' English language proficiency for academic, professional and personal purposes
- 2. Intercultural skills for academic study
 - Promoting intercultural competence
 - Promoting awareness of other varieties of English
 - Adopting socially and culturally appropriate teaching methodology
- 3. Designing syllabi, providing pre-service and in-service training programs
- 4. Interdisciplinary research

Andrew Barnard (ME-EM)

Background

- B.S. and M.S. in Mechanical Engineering from MTU
- Ph.D. in Acoustics from Penn State (PSU)
- 8 years as a Faculty Research Associate at the Applied Research Laboratory at PSU (Structural Acoustics)
- Board Certified by the Institute of Noise Control Engineering
- Certified LabVIEW Developer

My specialties include

- Acoustics, noise control, vibration, and controls
 - Measurements and signal processing, underwater acoustics, atmospheric acoustics, room acoustics, microphone and speaker array processing techniques, machinery noise control, acoustic intensity and underwater vector sensors, experimental modal analysis, acoustic material characterization, real-time control systems, and custom LabVIEW data acquisition development.









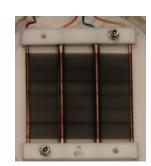




Andrew Barnard (ME-EM)

My current research interests include

- Development of carbon nanotube thin-film transducers as loudspeakers
- Long range acoustic hailing devices
- Intensity-based nearfield acoustic holography techniques
- Underwater sound intensity (vector) sensors
- Underwater acoustics and machinery noise control
- Human perception of noise (community noise, room acoustics, hearing damage, etc...)
- Stadium noise
- Anything interesting related to acoustics and vibration









Seokwoo (Jake) Choi (Math)

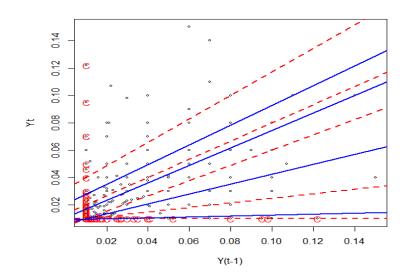
seokwooc@mtu.edu

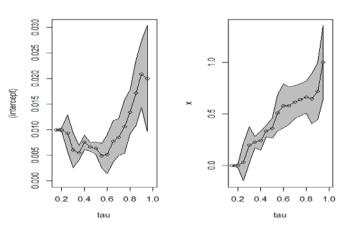
- Who I am
 - I am from Republic of Korea
 - B.A/M.S in Statistics, Yonsei Univ., 2007
 - Ph.D. in Statistics, U of Illinois at U-C, 2014
- Lexcel at
 - Quantile Regression
 - Survival Analysis
 - Time Series Analysis



Seokwoo (Jake) Choi (Math)

- I can contribute by
 - Quantile regression
 - Modeling in heterogeneous data
 - Survival Analysis with censored data
 - AR models in time-series
 - Bootstrap Inference
 - Statistical computing









Yvette Dickinson (SFRES)

- My background:
 - B.For.Sc., M.Sc. (University of Canterbury, N.Z.), Ph.D. in Forest Resources (Penn State)
 - Temp. Asst. Prof., Colorado State
 University (2012-2014)
- Lexcel at:
 - Silviculture: applied forest ecology and management



Yvette Dickinson (SFRES)

• I can contribute by:

Spatial ecology: micro- to landscape-scales

Sustainable forest management for varied objectives teaching and mentoring future natural resource managers and scientists

Research

Forest management techniques

Applied GIS and remote sensing

Ecological restoration



Steven Elmer

Assistant Professor Dept. of Kinesiology and Integrative Physiology (KIP)

- PhD Exercise Physiology
 - University of Utah

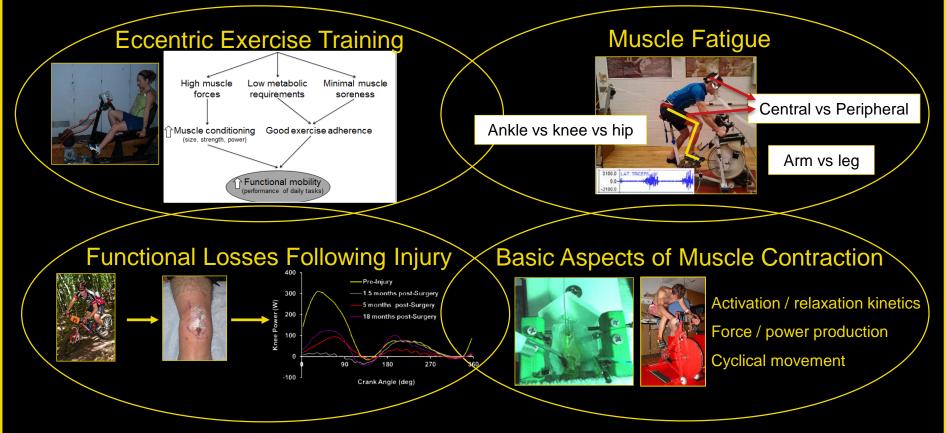
- Assistant Professor
 - University of Maine

- Outdoor enthusiast
 - Cycling and xc skiing



My research interests in health are broad in nature. I use a human cycling model to investigate aspects of skeletal muscle functional and dysfunction...

Skeletal Muscle Function



I excel at having lots of ideas! I look forward to forming new collaborations!

Applications for my research range from basic neuromuscular function to applied human performance in a variety of settings including injury, rehabilitation, ergonomics, and sports.

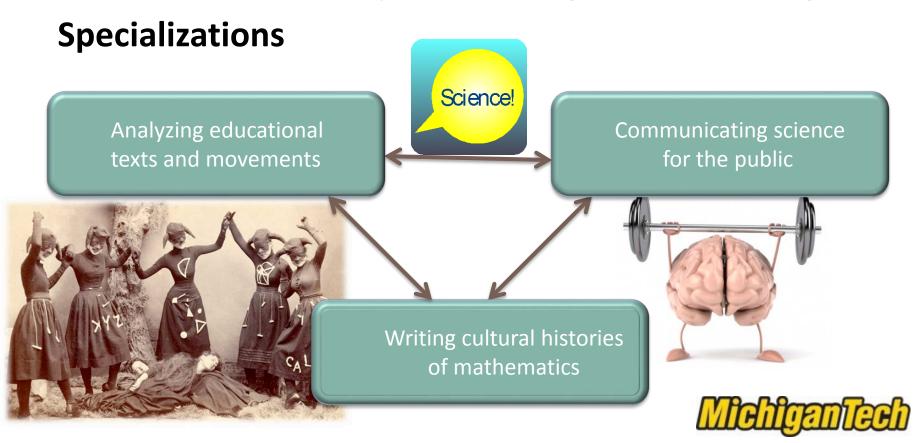
Steven Elmer

Andrew Fiss (Humanities)

afiss@mtu.edu

Background

- Mathematics (Vassar), History & Philosophy of Science (Indiana)
- Postdoctoral Fellowships at Vassar College and Davidson College



Andrew Fiss (Humanities) afiss@mtu.edu

Potential Contributions

Applying Historical & Philosophical Methods
to Scientific & Technical Writing
Collaborating to Develop Programs
for Improving Scientific and Digital Literacies
Supporting Diversity Initiatives in STEM Education
Participating in Michigan Tech's

Humanities Internship Program

Society of Technical Communication (STC) Chapter



Robert Hutchinson (SBE)

- I am from Toledo, OH, U.S.A.
- I excel at
 - Accounting
 - Managerial accounting
 - Manufacturing cost accounting
 - Transfer pricing
 - Target costing



Robert Hutchinson (SBE)

- I can contribute by
 - Research
 - Simulations
 - archival research
 - Semiotics
 - Teaching
 - Cost/managerial accounting
 - Financial accounting
 - Provide leadership to the new Master of Science in Accountancy program



Jaclyn Johnson (MEEM)

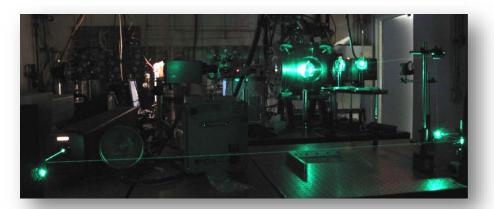
jenesbit@mtu.edu

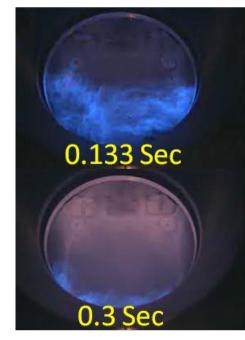
My background

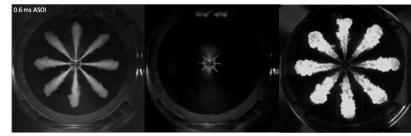
- B.A. in Physics and Math Illinois Wesleyan University
- MS & PhD In Mechanical Engineering Michigan Tech
- Research Engineer / Instructor at Michigan Tech

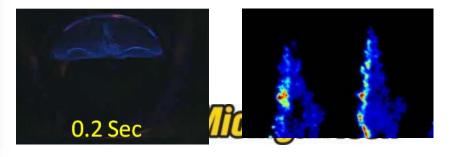
I excel at

- Energy / ThermoFluids
- Fundamental Diesel Spray & Spark Ignition Studies
- Thermophysical Property Modeling
- Optical Diagnostics and Image processing
- Signal processing









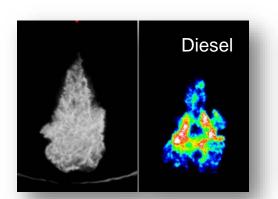
Jaclyn Johnson (MEEM)

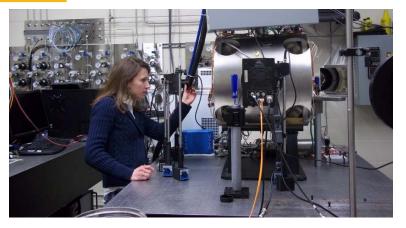
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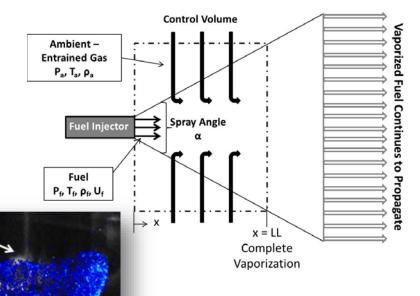
Spark Plug

I can contribute by

- Fundamental spray and combustion characterization of alternative fuels (i.e. green diesel, etc.) using optical and laser diagnostics
- Thermophysical property modeling - fuel sprays
- Teaching









Lisa Johnson

Sculpture
Installation
Theatricality
Collaborative Practice

Landscape Ecology Social justice and Human patterning

How does our relationship to the landscape relfect our relationships with one another?

Visual and Performing Arts



Lisa Johnson

Visual and Performing Arts









Education:

- *MFA, The University of Iowa
- *BA, Virginia Tech

How I can contribute:

- *Collaborations across diverse communities
- *Partnerships between arts and science
- *Reflection and engagement with landscapes

Most recent work:

- * Prairie landscapes and their/our impact
- * Partnerships with biological field stations
- * Iowa Lakeside Laboratory/LTER)
- * Collaborations between artists, scientists, & community members

Other collaborations:

- *Trench(era): Arts-writing-
- ecology in Guatemala
- *Eva Luna: Storytelling
- among incarcerated
- communities



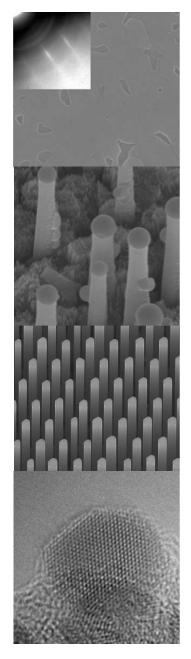
Chito Kendrick (ECE/MSE) cekendri@mtu.edu

My Background

- Ph.D. in Electrical and Electronic Engineering (University of Canterbury, New Zealand)
- Postdoctoral Scholar Pennsylvania State University
- Research Professor Colorado School of Mines

I excel at

- Semiconductor growth and characterization thin film and structured materials
- Next generation photovoltaic cells

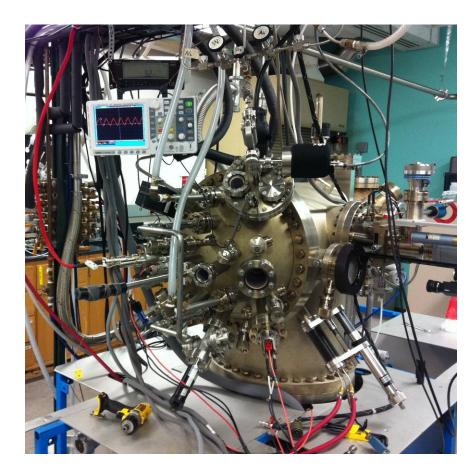




Chito Kendrick (ECE/MSE) cekendri@mtu.edu

I can contribute by

- Growth of semiconductor thin films or nanostructures
 - Chemical vapor deposition (CVD)
 - Plasma enhanced CVD (PECVD)
 - Molecular beam epitaxy
- Fabrication and testing of photovoltaics cells
- Nano and Micro fabrication





HEATHER KNEWTSON (knewtson@mtu.edu) Assistant Professor of Finance School of Business & Economics

• Education:

- BA, Actuarial Science, Roosevelt University, 1999
- MA, Applied Economics, Washington State University, 2010
- PhD, Finance, Washington State University, 2011

Background & Experience:

- Intelligence Analyst, US Army
- Administrative positions at Wayne State & Michigan Tech
- Pension Actuary at Watson Wyatt
- Faculty, Central Michigan University, 2011 2014

HEATHER KNEWTSON (knewtson@mtu.edu) Assistant Professor of Finance School of Business & Economics

- Expertise:
 - Doctoral training
 - Finance and economics theory
 - Econometrics & statistical analysis of archival data
 - Insider Trading
 - Tests of market efficiency using the trades of informative insiders
 - · Explains effectiveness of compensation contracts and securities regulation.
 - Published in the Financial Analysts Journal, the Journal of Business Research and Managerial Finance
- Future contributions:
 - Works in progress:
 - Portfolio impact of Social Media selections
 - Impact of short swing trades of insiders on finance and the law.
 - Future research directions:
 - Institutional demand for Social Media selections
 - Non profit compensation

Don Lafreniere (Social Sciences)

djlafren@mtu.edu

My Background ***

B.S. Geography and History (Eastern Michigan)

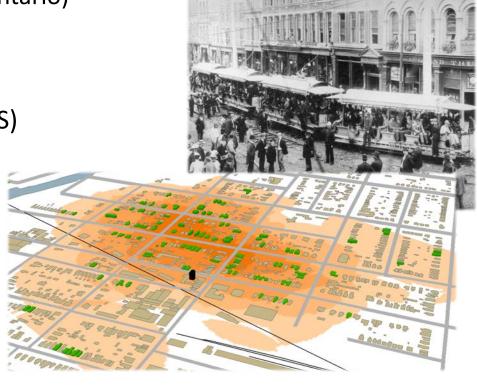
PhD Geography (U of Western Ontario)

Technical Areas

- Geographic Information Systems (GIS)
- Space-Time Integration
- Automated Record Linkages

Topical Areas

- Historic Urban Environments
- Mobility and Social Interaction
- Sense of Place and Neighborhoods
- Historical Demography





Don Lafreniere (Social Sciences)

djlafren@mtu.edu

I can contribute with

- GIS-driven Methodologies
- Environmental Change Over Time
- Data Mining and Record Linkages
- Recreating Historic Flows
 (people, goods, pollutants, capital etc)
- Geographic Field Techniques
- Archival Research
- Geographic Education







Bryan Alan Lagalo (Economics) balagalo@mtu.edu

Background

- B.A. Economics Saginaw Valley State University, MI
- B.B.A. Finance Saginaw Valley State University, MI
- M.A. Economics University of Georgia, GA
- Visiting Professor Brenau University, GA (2012-2014)

Fields of Specialization

- Primary: Applied Microeconomics, Industrial Organization
- Secondary: Managerial Economics, Finance, Labor Economics, International Economics



Bryan Alan Lagalo (Economics) balagalo@mtu.edu

Who I am at MTU:

Lecturer of Economics

MTU Courses Include:

- EC 2001 Principles of Economics (survey class)
- EC 3400 Economic Decision Analysis (finance for engineering students)
- EC 3002 Microeconomic Theory
- EC 4710 Labor and Human Resource Economics



Latika Lagalo (Economics) Iglagalo@mtu.edu

Background

- B.A. Economics University of Delhi, Delhi, India
- Ph.D Economics Wayne State University, Detroit, MI
- Visiting Professor Emory University, 2011 2014

Fields of Specialization

Primary: Macroeconomics, Energy Economics

 Secondary: International Economics, Applied Time Series Econometrics

Latika Lagalo (Economics) Iglagalo@mtu.edu

How can I contribute?

- Oil and the Macroeconomy
 - functional form & structural stability of the relationship
 - use of disaggregated data
 - demand and supply effects
 - Effect on labor markets; role of monetary policy, energy policy
- Crude steel and iron prices and production
 - effects of growth of production and demand in China
 - effects of industry consolidation
 - effects on U.S. industrial production
- Inter-disciplinary research with environmental economics/ energy engineering.



Amy Lark

Assistant Professor of Science Education (CLS)

BSc in Biology, Oakland University

MSc in Zoology, Michigan State University

PhD in Science Education, Michigan State University

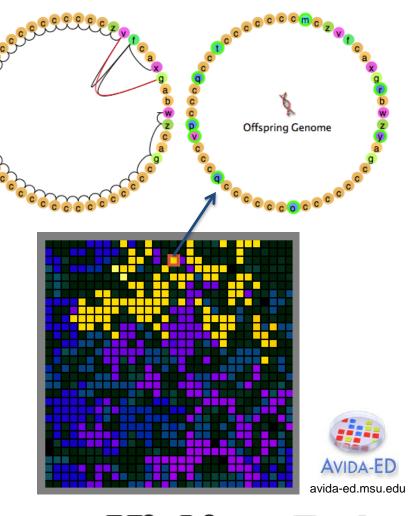


Amy Lark

Discipline-Based Education Research (DBER)

- STEM Teaching and Learning
 - Evidence-based best teaching practices
 - Integration of science content and practices
 - Development of curriculum and assessments
 - Science teacher preparation and PD
 - Interdisciplinary collaboration
- Public Understanding of Science
 - Nature and practices of science
 - Sociopolitical issues in science (evolution)







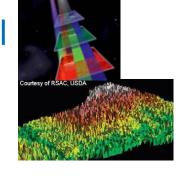
Isabella Mariotto (SFRES)

- PhD Ecology, New Mexico State University
- BS/MS Natural Sciences, University of Padova, Italy
- Expertise
 - Remote Sensing (hyperspectral and multispectral)
 and GIS spatial analysis
 - Plant ecology and ecophysiology



Isabella Mariotto (SFRES)

- I can contribute by
 - Assessment of Forest Health/physiological conditions using RS and GIS
 - Evapotranspiration
 - Air pollution at gas extraction sites
 - Forest fragmentation
 - Development of spectral library of forest and wetland plant species composition
 - Development of international relationship with
 Africa Space Agency on agro-forestry projects for forest preservation and food security





Lorelle A. Meadows Dean, Pavlis Honors College

- Background (University of Michigan)
 - BS, MS and PhD in Oceanic Science
 - Assistant Dean of Academic Programs
- Research Interests
 - Coastal Hydrodynamics (legacy)
 - Engineering Education (current)
 - Gender Stereotypes
 - Student Motivation/Persistence/Success
 - Human-Centered Design



Lorelle A. Meadows Dean, Pavlis Honors College

- Programs Administered by the College
 - Enterprise Program
 - Honors Institute
 - Pavlis Institute for Global Technological Leadership
 - Research Scholars
 - Summer Undergraduate Research Fellowships
 - National Competitive Scholarships
- Interests
 - STEM Education Research
 - Entrepreneurship and Innovation
 - Service-Learning and Other Educational Engagement Models
 - Diversity, Inclusion and Engagement



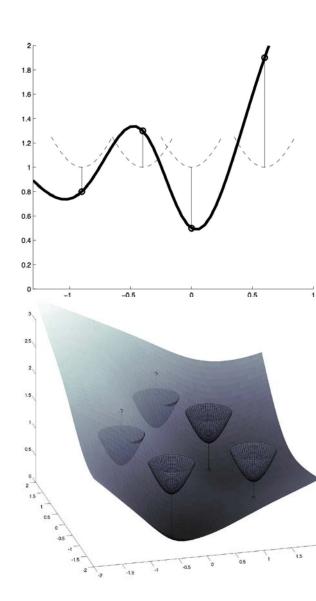
Cecile Piret (Math)

Education/Experience

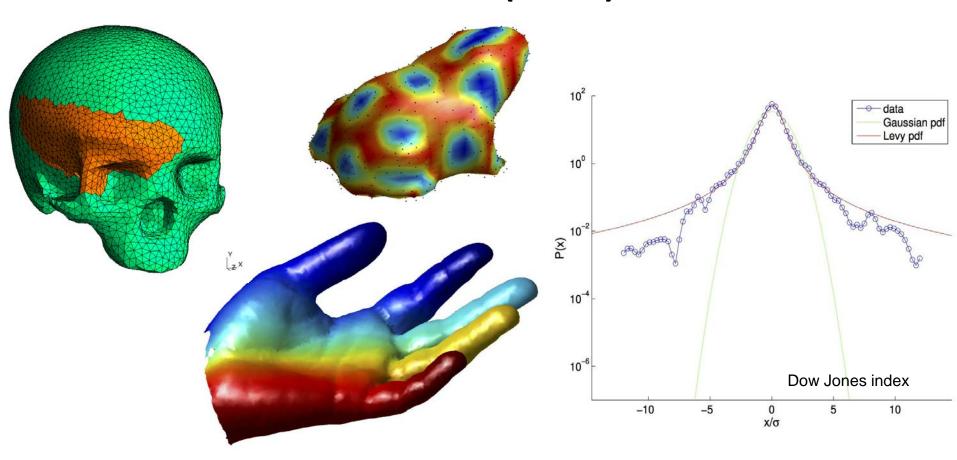
- PhD, CU Boulder (CO), 2008
- Postdoc, NCAR (CO), 2008-2010
- Postdoc, UCL (Belgium), 2010-2012
- Assistant Prof, UCL (Belgium), 2012-2014

Areas of Research/Expertise

- Applied and Computational Math
- High-order Methods
- Radial Basis Functions
- Fractional and Partial Differential Eqns



Cecile Piret (Math)



Yeonwoo Rho (Math)

My background:

- BS/BA in Math/Econ, Seoul National University
- MS in Statistics, Seoul National University
- PhD in Statistics, University of Illinois at Urbana-Champaign

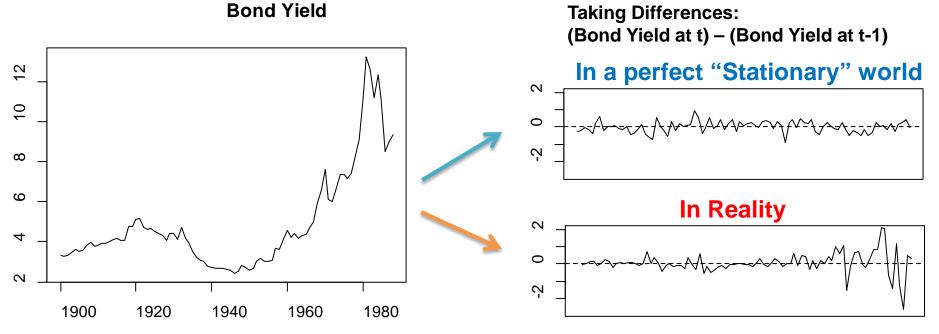
I excel at

- Time Series Analysis
- Econometrics
- Bootstrapping Methods



Yeonwoo Rho (Math)

- I can contribute with
 - Nonstationary (short-memory) Time Series



- Theoretical ground for bootstrapping methods
- Statistical consulting



<u>Orhan Soykan – Biomedical Eng.</u>

TRAINING:

Ph.D. in Electrical Engineering and Applied Physics, Case Western Reserve University, 1990

PROFESSIONAL EXPERIENCE:

Defense – Military Electronic Industries (ASELSAN) Government – NASA and FDA

Industry – Medtronic, Inc.

Academia - MTU

Independent – Technical consulting

SKILLS:

Engineering

Physics

Sensors and Instrumentation

Modeling (Mathematical and Computational)

Programming

Signal Processing

Data Analysis and Statistics/Bioinformatics

Medical Research (Cardiology, Molecular Med.)

Clinical Trial Design and Management

Intellectual Property

Business Development



LIVED IN: Middle East, U.S. Europe. Japan

HOBBIES:
Running & bicycling
Piloting aircraft

O. Soykan may contribute to:

NEW RESEARCH by:

Early analysis of concepts to assess their feasibility Modeling work to generate data in support of grant proposals

TEACHING by:

Bringing an industrial perspective and experience to the classroom

Inviting group of colleagues who are in practice to lectur as guests

ONGOING ACTIVITIES by:

Engineering

Instrumentation

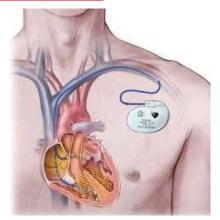
Signal analysis

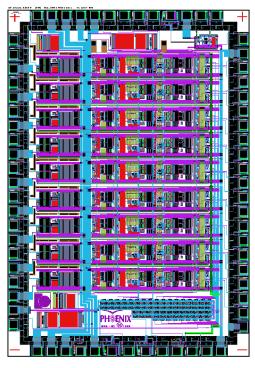
Identifying medical applications

COLLABORATIONS WITH INDUSTRY & ACADEMICS by:

Partnering with domestic firms

Building networks with overseas colleges





Jae Yong Suh (Physics)

- Physics at KKU (BS), Highenergy physics at Korea University (MS)
- Solid-state physics and applied optics at Vanderbilt U. (PhD),
- Plasmonics and Nanophotonics at Northwestern U. (Postdoc)

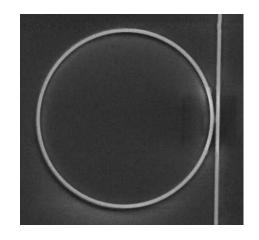


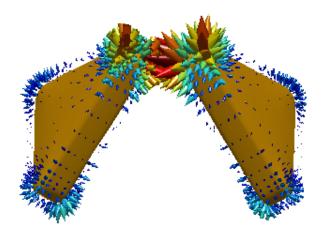


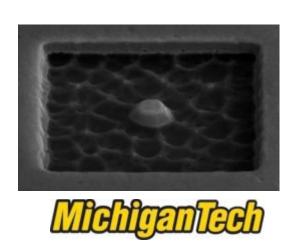
Jae Yong Suh (Physics)

I can contribute by researching and collaborating in the following areas

- Light-matter interactions and quantum optics on nanoscale platforms (i.e. nanostructures)
- Coherent and nonlinear processes in metal or semiconductor nanocavities and nanolasers
- Time-resolved laser spectroscopy and nanofabrications

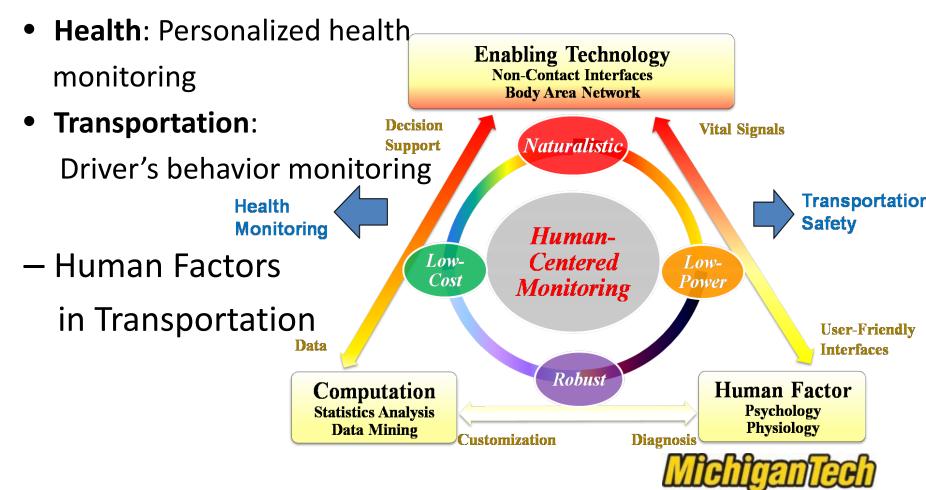






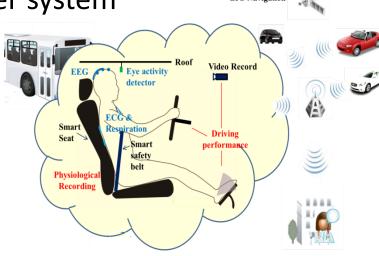
Ye (Sarah) Sun (ME-EM)

- I excel at
 - Human-Centered Monitoring



Ye (Sarah) Sun (ME-EM)

- I can contribute by
 - Human-Centered Monitoring Technology
 Development
 - Non-contact physiological measurement
 - Body area network
 - New energy harvester for low power system
 - Diagnosis algorithm development
 - Driver Behavior Monitoring
 - Driver fatigue monitoring
 - Human Factors in Transportation





Jon Sticklen (Eng Fundamentals)

sticklen@mtu.edu

My background

- B.S. Physics (Ohio State), M.S. Astronomy (Columbia), & M.S. Comp
 Sci (Ohio State), Ph.D. Comp Sci (Ohio State), M-PBL (Aalborg expected)
- Adjunct Prof, Utah; Asst. Prof, Frostburg State; Asst./Assoc. Prof, MSU;

Areas of research/

Astronomy: Relationship of radio galaxies and guasars Computer Science: Knowledge-based systems Dx and Control ...

high performance aircraft
wheat production in Egypt, large scale ecological
modeling, polymer composite materials

Early Engineering Education:

integrated curricula, inverted classrooms, use of authentic problems in instruction, using low fidelity/multidisciplinary modeling in early engineering,institutional change in higher education

How will I contribute?

→ Role as Chair of Eng Fundamentals

- Catalyze teamwork and build consensus in EF
- Establish a cycle in EF: innovate, test outcomes, publish - in instruction

Role as Educational Researcher

- Search for optimizing mix of learning environment, pedagogy, and content delivery that produces good learning outcomes in an economic way
- Explore integrated curricula approaches to early engineering education problem-based learning
- Explore integrated curricula approaches to early engineering education problem-based learning
- Support discipline-based educational research (DBER)



Radheshyam Tewari

rtewari@mtu.edu

Background

- Ph.D. (ME-EM, Michigan Tech, Expected: September, 2014)
- MS (ME-EM, Michigan Tech)
- Asst. Mgr. (Machining Division, Bajaj Auto Limited, India)
- BE (MANIT, India)

Selected professional/research strengths

- Manufacturing processes and quality engineering
- Micro-machining and micro/nano fabrication
- Interdisciplinary research
 - Implantable medical devices
 - Nano bio-sensors
 - Titanium nanotubes
 - Biodegradable/bioerodible polymers



Radheshyam Tewari

rtewari@mtu.edu

- I can contribute by
 - Teaching
 - Undergraduate level mechanical engineering courses
 - Undergraduate/Graduate level courses in
 - Micro-manufacturing,
 - Semiconductor fabrication technologies,
 - Micro/nano metrology tools
 - Developing new elective courses
 - Assisting in curriculum revision efforts in the ME-EM dept.
 - Supporting emerging research thrust areas in the ME-EM dept.
 - Supporting ME-EM faculty in research proposal development



Ebenezer Tumban, Biological Sciences

Biography

- PhD- Molecular Biology
 New Mexico State University, Las Cruces, NM
- Post doctoral training- CTK Biotech (San Diego) and University of NM School of Medicine (UNM SOM--Albuquerque)
- Research Scientist- UNM SOM—Albuquerque

Expertise

 Exploring approaches to increase immune responses against human papillomavirus- HPV

Ebenezer Tumban, Biological Sciences

- HPV is an STI- causes both penile and cervical cancers
 - Two vaccines licensed
 - ~40 types can be transmitted sexually
 - Develop vaccines that offer broader protection

Benefits to the Department

- Expertise in infectious diseases- diagnostic tests
- Expertise in development and testing of vaccines

Dana Van Kooy

Department of Humanities dryankoo@mtu.edu

- Ph.D., University of Colorado, Boulder
- ♦ MA, University of Wisconsin, Madison
- ♦ BA, Marquette University
- Research & Teaching Interests
 - ★ Eighteenth- and Nineteenth-century British Literature; Visual and Performance Culture; Romantic Period Drama and Theatre; Literary and Cultural Theory; the Black Atlantic; Trans-Atlantic and Global Studies
 - Forthcoming Book: Shelley's Radical Stages
 - Next Book Project: Atlantic Configurations and the Aesthetic Technologies of Disappearance



Dana Van Kooy Department of Humanities

In both my teaching and research I am focused on interdisciplinary approaches to learning and work to improve our collective cultural, global and historical awareness.





In my forthcoming book, *Shelley's Radical Stages*, I argue that Percy Bysshe Shelley's early nineteenth-century dramas provide us with a unique perspective on the violence and political upheaval of a post-war era, in this instance, the Napoleonic wars (1803-1815). Through his writing, Shelley contested the entrenched ideologies of his war-torn society, sovereign power, the modern State of exception, and the Trans-Atlantic slave trade. He accomplished this by means of creatively interconnecting innovations taking place in the Romantic-period theatre and print culture.



MARCELINO VIERA-RAMOS

MVIERARA@MTU.EDU

DEPARTMENT OF HUMANITIES

I am from Argentina. I did my Ph.D. at the University of Michigan, Michigan.



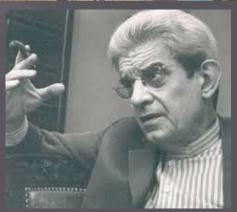
Areas of Research

Latin American Literature and culture 19th and 20th century.

Political Theory

Psychoanalysis (French School)





Marcelino Viera-Ramos

*mvierara@mtu.edu*Department of Humanities

How I can Contribute

Diversity: A deeper understanding of Latin American Cultures thus bringing diversity to our Campus

Critical Thinking: from philosophical and psychoanalytic point of view, a critique to our naturalized way of seeing the world.





Audrey Viguier

My background:

- Born and raised in France
- Ph.D., University of Florida; M.A., University of South Florida; B.A., University of Toulouse

Areas of research:

- Radical literature (French Revolution)
- Historical, social, and cultural changes (French Revolution)

Contributions:

Audrey Viguier

- Local identities
- Revolutionary pamphlets
- Dechristianization of France
- Occitan
- Olympe de Gouges







Xiaohu Xia (Chemistry Dept.)

xiaxh@mtu.edu

- Background
 - -2012-2014 Postdoc, Georgia Institute of Technology
 - -2006-2011 Ph.D. (2006-2009 Xiamen University, China; 2009-2011 Washington University in St. Louis)
- Areas of Research
 - -Development of nanomaterials with well-controlled sizes/shapes
 - -Advanced nanomaterials for biomedicine and energy production



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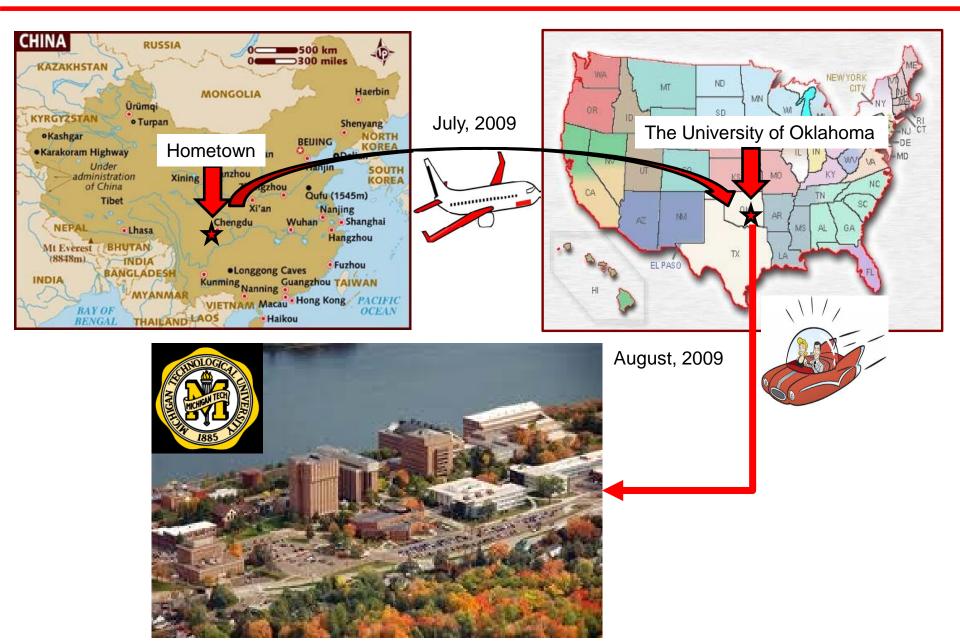
- I can contribute to
 - -Teaching students with fundamentals of nanoscience and nanotechnology
 - -Original research on nanomedicine and nanoenergy
 - -Services for MTU and the community





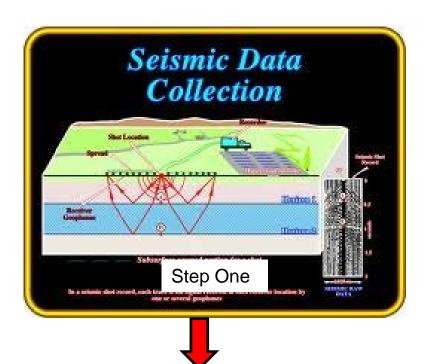


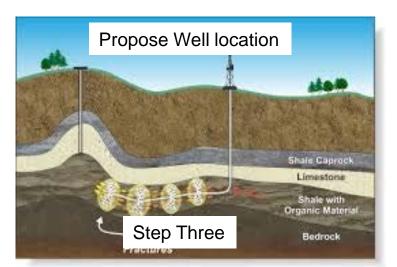
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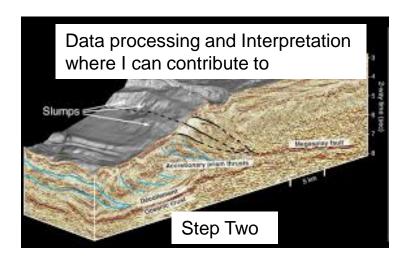
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Thank you!

These slides will posted for all faculty to see at

Tech Talks Research