RESEARCH FACULTY IN THE WOODRUFF SCHOOL

JANET K. ALLEN

Associate Professor of Mechanical Engineering, Savannah Campus
Computer-Aided Engineering and Design
Ph.D., University of California, Berkeley, 1973
S.B., Massachusetts Institute of Technology, 1967
Design evolution over time, modeling uncertainty, decision-based design, and design pedagogy

Distinction

• American Society of Mechanical Engineers Fellow, 2005


Allen

SCOTT S. BAIR

Principal Research Engineer
Tribology
Ph.D., Georgia Institute of Technology, 1990
M.S., Georgia Institute of Technology, 1974
B.S., Georgia Institute of Technology, 1972
Tribology, rheology, properties of liquids at high pressure, and machine design

Selected Patents

• Instrument and Method for Phacoemulsification by Direct Thermal Irradiation, U.S. Patent 6,527,766, March 4, 2003
• Microkeratome, U.S. Patent 6,126,668, with Igor Gradov, Ronald L. Rabie, and Edward L. Hicks, October 3, 2000

Distinctions

• American Society of Mechanical Engineers Fellow, 2002
• Society of Tribologists and Lubrication Engineers Captain Alfred E. Hunt Memorial Award, 2001


Bair

VAN B. BIESEL

Research Engineer II
Acoustics and Dynamics
M.S., Georgia Institute of Technology, 1993
B.S., Purdue University, 1988
Acoustics, vibrations, noise control, numerical modeling, transducers, and piezoelectric materials


Biesel

JOHN R. BOGLE

Research Engineering II
Acoustics and Dynamics
M.S., Georgia Institute of Technology, 1987
B.S., Georgia Institute of Technology, 1984
Structural acoustics, finite/boundary element modeling techniques of the interaction of underwater sound and structures, and vibrations


Bogle

TOM CRITTENDEN

Research Engineer II
Heat Transfer, Combustion, and Energy Systems
Ph.D., Georgia Institute of Technology, 2003
M.S., Georgia Institute of Technology, 1998
B.S., Auburn University, 1995
Flow control, fluidic actuation techniques, small-scale combustion, and MEMS-based actuators


Crittenden

JOHN CULP

Research Engineer II
Fluid Mechanics
B.S.M.E., Georgia Institute of Technology, 2000
Fluidic actuators and technologies, computer-based data acquisition, fluid flow fields, electronic components


Culp

FRANCOIS M. GUILLOT

Research Engineer II
Acoustics and Dynamics
Ph.D., Georgia Institute of Technology, 2000
M.S., Georgia Institute of Technology, 1995
Diplôme d'Ingénieur, Université de Technologie de Compiègne (France), 1994
Acoustic material characterization (elastic properties of passive materials, piezoelectric and electrostrictive constants of polymers); measurement methodology; laser doppler vibrometry; electromechanical transduction and structural acoustics.


Guillot

STEVEN R. HAHN

Research Engineer II
Acoustics and Dynamics
M.S., Georgia Institute of Technology, 1988
B.S., Georgia Institute of Technology, 1985
Structural acoustics, vibrations and control, finite element and boundary element techniques.


Hahn

SAM HEFFINGTON

Research Engineer II
Heat Transfer, Combustion, and Energy Systems
Ph.D., Georgia Institute of Technology, 2001
M.S., University of Texas at Austin, 1996
B.S., Texas A&M University, 1994
Thermal management of electronic packages, spray cooling, boiling enhancement, two-phase flows.


Heffington

JAMES HUGGINS

Research Engineer II
Automation and Mechatronics
M.S.M.E., Georgia Institute of Technology. 1988
B.S.M.E., Clemson University 1978
Hydraulic and pneumatic motion controls


Huggins

GREGG D. LARSON

Senior Research Engineer
Acoustics and Dynamics
Ph.D., Georgia Institute of Technology, 1996
M.S., Georgia Institute of Technology, 1990
B.S., Vanderbilt University, 1988
Transduction, acoustics, vibrations, and piezoelectric ceramics


Larson

ANGELA LIN

Research Engineer I
Bioengineering
M.S., Georgia Institute of Technology, 2002
B.S., Georgia Institute of Technology, 1999
Orthopaedic bioengineering, microcomputed tomography imaging of trabecular bone and other materials, biomechanics of polymer scaffolds for bone tissue engineering.


Lin

RAGHAV MAHALINGHAM

Research Engineer II
Fluid Mechanics
Ph.D., Georgia Institute of Technology, 1999
M.S., Georgia Institute of Technology, 1995
B.Tech., Indian Institute of Technology, Madras, India, 1994
Thermal management in microelectronics, vortex dynamics, unsteady aerodynamics, rotorcraft aeromechanics, active flow control
Patent
• System and Method for Thermal Management by Synthetic Jet Ejector Channel Cooling Techniques, U.S. Patent 6,588,497, with Ari Glezer, July 8, 2003.


Mahalingham

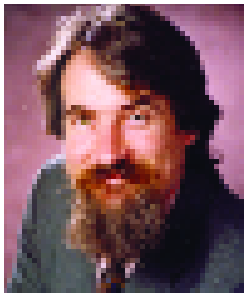
JOHN MANDREKAS

Senior Research Scientist
Ph.D., University of Illinois at Urbana-Champaign, 1987
M.S., University of Illinois at Urbana-Champaign,1984
Diploma, National Technical University of Athens, 1979
Plasma physics, transport theory, fusion reactor design, numerical methods, and computational physics.


Mandrekas

JAMES S. MARTIN

Senior Research Engineer
Acoustics and Dynamics
M.S., Georgia Institute of Technology, 1994
B.S., Georgia Institute of Technology, 1989
Shallow water sound propagation, internal gravity waves, experimental structural acoustics, bioacoustics/biomimetics, nondestructive testing, and nonlinear bubble dynamics


Martin

RESEARCH FACULTY IN THE WOODRUFF SCHOOL

DENNIS L. SADOWSKI


Sadowski

Research Engineer II
Heat Transfer, Combustion, and Energy Systems
M.S., University of Illinois at Chicago, 1986
M.S., University of Chicago, 1977
B.A., University of Chicago, 1976
Thermal sciences, and design and construction of experimental equipment.

Selected Patents

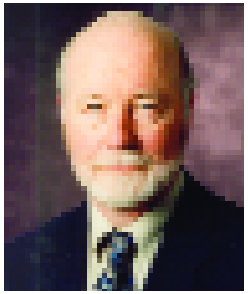
- Parallel Porting Valve Assembly, U.S. Patent 5,332,018, with William F. Rush and Hyman A. Todres, August 3, 1989
- Reelable Flow Stopper for Plugging Fluid Flow Within a Pipe, U.S. Patent 4,830,041, with Narayan C. Saha, May 16, 1989

REZA SADR


Sadr

Research Engineer II
Fluid Mechanics
Ph.D., University of Utah, 2002
M.S., Carleton University, 1996
B.S., Iran University of Science and Technology, 1991
Micro fluid-mechanics, two-phase flow, and boundary layer flow.

DAVE TRIVETT


Trivett

Principal Research Scientist
Acoustics and Dynamics
M.S., University of Wisconsin (Madison), 1976
S.B., Massachusetts Institute of Technology, 1974
Structural acoustics, measurement methodology, transduction mechanisms, acoustic materials, and sonar systems.

BOJAN VUKASINOVIC


Vukasinovic

Fluid Mechanics
Ph.D., Georgia Institute of Technology, 2002
M.S., University of Belgrade, 1996
B.S., University of Belgrade, 1992
Flow diagnostics and control, shear layer flows, liquid breakup and atomization, sprays, and thermal management.

JELENA VUKASINOVIC


Vukasinovic

Research Engineer II
Fluid Mechanics
M.S., Georgia Institute of Technology, 2000
B.S., University of Belgrade, Yugoslavia, 1996
Thermal management in electronics packaging, evolution and interaction in synthetic jet arrays, fluidic-based forced convection heat transfer, vortex dynamics in rotating flows, optical diagnostics.

XUEZHEN ZHANG


Zhang

Research Scientist II
Acoustics and Dynamics
Department of Physics of Nanjing University, majored in Physics (3.5 years), Acoustics (1.5 years), 1958-1963
Computational acoustics and shallow water acoustics

JI-XUN ZHOU


Zhou

Principal Research Scientist
Acoustics and Dynamics
Chinese Academy of Sciences Graduate School (Ocean Acoustics), 1963-1967
Nanjing University Department of Physics (Physics and Acoustics), 1958-1963
Shallow water acoustics, sound propagation and reverberation, acoustic interactions with internal waves, seafloor acoustics, and acoustic remote sensing.

Distinction

- Acoustical Society of America Fellow, 2005