

Anudeep PALANKI

PERSONAL DATA

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CURRENT LOCATION: Saint Louis, Missouri, USA.

RESEARCH INTERESTS

- Computational Multibody Dynamics.
- Modeling Multi-Scaled Systems.
- Machine Learning based Control Systems.

PROFESSIONAL EXPERIENCE

Current | Application Developer at MONSANTO COMPANY, St.Louis, Missouri, USA
FEB 2015 | Developed and enhanced the functionality of multi-tier web applications and web services using MODEL-VIEW-CONTROLLER architecture.

Dec 2014 | Java Developer at COMDATA INC, Nashville, Tennessee, USA
FEB 2014 | Developed large scale distributed enterprise systems using AGILE methodologies.

EDUCATION

MAY 2013 | Master of Science in MECHANICAL ENGINEERING
The University of Texas at Arlington | Specialization: Dynamics & Control
Thesis: "Modeling the dynamic behavior of Estrogen docking into its receptor"
Thesis advisor: Prof. Alan BOWLING | GPA: 3.78/4.0

MAY 2011 | Bachelor of Technology in MECHANICAL ENGINEERING
Jawaharlal Nehru Technological University, Kakinada, India
Senior Design Project: "Analyzing the effect of wind loading on tower cranes"
Advisor: Prof. Ravikumar NARADASU | GPA: 3.75/4.0

RESEARCH EXPERIENCE

DEC 2013 | Research Associate, ROBOTICS, BIOMECHANICS AND DYNAMIC SYSTEMS LAB
MAY 2013 | THE UNIVERSITY OF TEXAS AT ARLINGTON
To understand the dynamics of wound healing, I developed a discrete, dynamic, multibody model of Myofibroblast interacting with Extra Cellular Matrix (ECM). Furthermore, I formulated a control algorithm to replicate Myofibroblast's mechanosensitive interaction with ECM.

MAY 2013 | Research Assistant, ROBOTICS, BIOMECHANICS AND DYNAMIC SYSTEMS LAB
JAN 2012 | THE UNIVERSITY OF TEXAS AT ARLINGTON
To develop a screening technique capable of identifying carcinogens that cause breast cancer, I developed a three-dimensional multi scaled, dynamic model of estrogen docking into its receptor. Additionally, I proposed solution to address the multi-scaled nature of this system.

PEER-REVIEWED RESEARCH ARTICLES

- A. PALANKI and A. BOWLING, *Dynamic Model of Estrogen Docking Using Multiscale Analysis*, in **Journal of Nonlinear Dynamics**, 2014. DOI: 10.1007/s11071-014-1758-6

GRANTS AND OTHER CONFERENCE ARTICLES

- **NIH**, *Macromolecular Structure and Function E Study Section*: Collaborative Research Theoretical Approach to Screening Endocrine Disruptive Chemicals for Breast Cancer
- **NSF**, *Molecular and Cellular Biosciences*: Collaborative Research Accelerated Investigation of Cellular Mobility Using Novel Multiscale and Uncertainty Analysis
- **A. PALANKI**, *Theoretical Approach to Screen Endocrine Disruptive Chemicals for Breast Cancer*, in Annual Celebration of Excellence by Students, UTA, 2013.

INTERNSHIPS

AUG 2010	Induction Trainee at Manufacturing Division, MAHINDRA AND MAHINDRA Automobile Production Plant, Nashik, India Gained overview on implementation of automation and quality measures in high capacity automobile production plant.
MAY 2010	
AUG 2009	Vocational Trainee in Thermal Power Plant, VIZAG STEEL PLANT, Visakhapatnam, India Studied functional aspects of Steel Plant in general and acquired conceptual understanding on implementation of efficiency improvement approaches in a thermal power plant.
MAY 2009	

PRESENTATIONS

- Brown Bag Seminar, *Department of Mechanical and Aerospace Engineering, The University of Texas at Arlington*, April 2013. (Technical Paper)

AWARDS AND OTHER ACTIVITIES

- **Fellowship** for research on Nano and Micro scaled systems provided by the Department of Mechanical and Aerospace Engineering at UTA (2013).
- **Reviewer**- IEEE International Conference on Robotics and Biomimetics (ROBIO).
- **Team design competitions**- designed and fabricated:
 - **Rover** for NASA ROBO-OPS competition.
 - **Powered glider** for IIT-MADRAS'S WRIGHT BROTHERS DESIGN CHALLENGE.
 - **Glider** for IIT-KHARAGPUR'S LAWS OF MOTION competition.
- **Online courses** completed on COURSERA-
 - MACHINE LEARNING BY ANDREW NG.
 - ALGORITHMS: DESIGN AND ANALYSIS, PART 1 BY TIM ROUGHGARDEN.
 - GENERAL GAME PLAYING, BY MICHAEL GENESERETH.
- **Data science competitions**:
 - KAGGLE- Titanic challenge.
 - MONSANTO COMPANY - Seed Returns Decision Science Bootcamp.

TECHNICAL SKILLS

CAD Design & Analysis:	PROE, CATIA, ANSYS
Programming Languages:	SCALA, JAVA, MATLAB, C, C++, PYTHON, R, SQL, NODEJS
Web Design:	HTML, JAVASCRIPT, CSS, JQUERY, AJAX, ANGULARJS
Tools:	Adobe Illustrator, \LaTeX
Fabrication Skills:	Sheet metal and balsa wood fabrication