Biographical Sketch

R. Narayanan
Professor of Chemical Engineering

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Personal Data:

Date and place of Birth: Feb.5, 1950, New York: Citizenship: U.S.

Education:

B. Tech (Honors)	University of Madras, India	1971
M.S. Chem. Eng.	Illinois Inst. Technology	1973
Ph.D.	Illinois Inst. Technology	1978

Employment History:

Faculty, University of Florida	1981-present
Res. Engineer, Amoco Research Center, Naperville, IL.	1976-1981

Selected Professional Achievement Awards and Honors:

Outside of the University of Florida

- Elected as Corresp. Acad. Member of International Astronautics and Aeronautics 2006
- J. William Fulbright Foundation Senior Research Fellowship 2000-01
- A.v. Humboldt Foundation Fellowship 1989

Within the University of Florida

- Charles A Stokes Professorship 2003
- Univ. of FL Research Foundation Professorship 2002
- Univ. of Fl. College of Engg, Teacher of the Year Award 2000
- Univ. of Florida, Professorial Excellence (PEP) Award 1998
- AIChE Student Chapter Award for Excellence in Teaching 1997
- Univ. of Fl. College of Engg, Teacher of the Year Award 1995
- Univ. of Fl. Teaching Incentive (TIP) Award 1995

Research Interests: Physical origins of patterns generation on surfaces during, electrodeposition, solidification, evaporation, convection etc. Applications to materials processing of semi conductors, biomedical applications and fuel cells.

Representative Journal Publications Connected to the IGERT Research:

O. Ozen and R. Narayanan, "The physics of evaporative and convective instabilities in bilayer systems: Linear theory, Phys. Fluids, p4644 **16**, N.12, (2004)

O. Ozen and R. Narayanan, "The physics of evaporative instability in bilayer systems: Weak nonlinear theory, Phys. Fluids., p.4653 , **16**, N.12, (2004)

K. Uguz and R. Narayanan, "The instability of an encapsulated cylindrical liquid bridge subject to off-centering" Phys Fluids. **17**, N.3, (2005)

O. Ozen and R. Narayanan, "A Note on the Rayleigh Taylor Problem with Evaporation",
Phys. Fluids **18**, 042110 (2006)

O. Ozen, E. Theisen, D. Johnson , P.C. Dauby and R. Narayanan, " The effect of gas dynamics
in bilayer liquid-gas convection", J. Colloid and Int. Science, **289**, Issue 1, P 271,(2005)

K. Uguz, N. Alvarez and R. Narayanan, "An experimental study on the instability of elliptical liquid bridges **"**, Phys Fluids **17**, 078106 (2005)

Q. BuAli, L.E. Johns and R. Narayanan, "The Growth of Roughness During Electrodeposition", Electrochim. Acta *Vol 51,N. 14, 15 Pages 2881-2889* (2006)

* GRADUATE STUDENT

Synergistic activities with international institutions: Chinese academy of Sciences, Crystal growth Center, India, Univ. Libre Brussels, Univ Paris XI, Tokyo Univ of Science. **Invited Professor at Univ. Paris , Univ Libre and Marseille (over 4 summers)**

Outreach activities in education: Supplied over 30 experimental kits to teachers of Alachua County (2005), Demonstrations of Fluids Experiments to schools in Levy County (2006), FL, Von Karman Inst. (2001) (Belgium), High Schools in Germany (2001). Demonstrations to HS and Middle Schools Students in Florida (Since 1995) These were done from voluntary efforts

Chair of Education Panel for Space Science at COSPAR (Committee for Space Research)
Some education efforts supported by Procter and Gamble Fund and NSF (CCLI)

List of Collaborators: L.E. Johns, G. Labrosse, P.C. Colinet,

List of Students or Post Docs Supported in the Past 5 Years:
O. Ozen, K Uguz, D. McDuff, J. Volk, W. Guo

Research funding received in last 5 years:

Approximately $1,000,000; funding sources include NSF, NASA, Dow Chemical Company, Procter & Gamble Company.