SRINIVASAN RAJARAMAN

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OBJECTIVE

Seeking a challenging position in the area of **fault diagnosis** and **Abnormal situation management** as a whole in the process industry.

EDUCATION

Ph.D in Chemical Engineering   *Expected in Aug 2004*
Texas A&M University, College Station, Texas A&M University
GPA 4.0/4.0
Emphasis: Robust nonlinear model-based fault diagnosis, Multivariate statistical analysis and Multi-resolution techniques for process monitoring.

B.S in Chemical Engineering   *July 2000*
Indian Institute of Technology, Roorkee, India.
GPA 3.9/4.0
Emphasis: Process development and design.

WORK EXPERIENCE

Texas A&M University – Graduate Research/Teaching Assisting   Aug'00 to present

- Designed **non linear model based fault diagnosis** scheme for chemical process.
- Designed an **output stabilizing state feedback control law** for a molecular control problem.
- Developed a method for **forecasting stock values using muti-resolution techniques and fuzzy logic**.
- Assisted in teaching freshman course in engineering and graduate level courses such as Chemical Engineering Process Analysis, Chemical Engineering Kinetics, Process Dynamics and Control.

Vam Organic Chemicals Limited, India- Bachelors Senior level project May'99 – Jun'99

- Developed a code for simulation of a fuzzy controller for controlling the startup of a catalytic reactor in the "**Acetaldehyde section of the plant**".

- Research work on the topic "**Super critical water oxidation**" under the scheme of undergraduate research award'98 in IIT, Roorkee, India. Dr. B. Prasad, Department of Chemical Engineering. IIT Roorkee, facilitated this project.

TECHNICAL SKILLS

- Process modeling, simulation, identification, and process optimization.
- Model-based predictive control (MPC).
- Robust control, optimal control.
- Data reconciliation and gross error detection.
- Multivariate statistical analysis, signal processing and multi-resolution techniques.
- Working knowledge of PLC, DCS and Foundation field bus instrumentation.

COMPUTER SKILLS

- Languages: C/C++, Visual C++ and Visual Basic.
- Software: Matlab/Simulink, SAS, Maple, MS office.
- Environments: UNIX, Windows, Linux.

PUBLICATIONS

- **S. Rajaraman**, M. S. Mannan, Issues in Fault Diagnosis and Isolation, *2001 Proceedings of Mary Kay O' Connor Process Safety Center*, pages 702-716, 2001, College Station, TX
- **S. Rajaraman**, M. S. Mannan, Nonlinear Observer based sensor fault detection, *AIChE Annual Meeting 2001*, Reno, NV
- **S. Rajaraman**, M. S. Mannan, Nonlinear Observer based fault diagnosis, *2002 Proceedings of Mary Kay O'Connor Process Safety Center Symposium*, College Station, Texas

HONORS AND ACTIVITIES

- Recipient of **University merit scholarship** (IIT, Roorkee, India) awarded to top 30% of a class of 35.
- Was awarded the "**SUMMER UNDERGRADUATE RESEARCH AWARD'98**" for the project titled "**Decomposition of municipal sludge by Super critical water oxidation**".
- AIChE member.
- Nominated for **Phi Kappa Tau** membership.

REFERENCES

Available upon request.