# HAROLD J. TOUPS

Residence: (225) 766-5969

7709 Boone Drive Baton Rouge, LA 70808 *Office*: (225) 578-3068

*E-Mail*: hjtoups@lsu.edu

# **PROFESSIONAL HIGHLIGHTS**

- Led design and development of state-of-the-art laboratory and pilot plant data acquisition systems utilized in process research experimentation.
- Performed data collection, analysis, and interpretation; and reported findings, key to the development of new and improved refinery processes.
- Led development and implementation of organization's safety goals, objectives, and action plans.
- Directed development and delivery of organization's safety, health, and environmental training curricula.
- Attained Distinguished Research Associate title, one of the highest technical titles available within ExxonMobil, 2003.

# EXPERIENCE

### Louisiana State University Department of Chemical Engineering

Baton Rouge, Louisiana 2003 – Present

Serving as industry-experienced instructor in communications-intensive core and capstone senior-level undergraduate chemical engineering courses, championing active learning classroom strategies:

ChE 4162 – Unit Operations Laboratory (Lead Instructor, and current commitment),

ChE 4172 – Process Design, and

ChE 4151 – Unit Operations Design

Received a 2015 Tiger Athletic Foundation Undergraduate Teaching Award

Co-authored paper entitled "Better Integration Of Process Design / Control Principles In Engineering Labs," presented by Dr. Kerry Dooley at the 2005 AICHE Annual Meeting.

## ExxonMobil Process Research Laboratories (EMPR)

Baton Rouge, Louisiana 1973 – 2003

Progressive responsibility and achievement.

Began employment with Esso Research Laboratories, serving eight years as a research associate for the petroleum industry's premier process research and development laboratory. Functioned the past twenty years as leader of and mentor for a wide variety of research support services teams (e.g., Instrumentation Services; Design Services; Quality & Continuous Improvement Team; Training & Education Group; and the Safety, Health, & Environmental Group) and as in-house business improvement consultant to senior management.

## In-house Business Improvement Consultant to Senior Management (1992 – 2003)

- Change agent and business process redesign expert for EMPR business leadership.
- Helped guide development of business plans regarding research and research support work processes for a series of Laboratory Managers.

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## Safety, Health, and Environmental Group (1995 – 2003)

- Provided technical and administrative leadership for safety, industrial hygiene and environmental needs.
- Continuously improved organization's safety record to the best in over 10 years. Responsible for standards and training for all employees in both laboratory and pilot unit domains.
- Supervised and mentored the activities of Safety, IH and Environmental Coordinators.
- Editor and co-author of major rewrite of EMPR Safety Manual, authoring the online version as well as web-based safety, health, and environmental information.

## **Training and Education Group** (1990 – 2003)

• Led the group, and provided a range of services from regulatory compliance training to satellite education curricula.

## Quality and Continuous Improvement Team (1991 – 1994)

- Led major reengineering project to dramatically reduced cost of research support services.
- Efforts resulted in 30% reduction in research overhead costs during following years.

### **Design Services** (1985 – 1995)

- Led pilot unit, laboratory, and facilities design services team that provided unique R&D-scale design competencies.
- Directed specification, selection and installation teams for the implementation of Honeywell TDC-3000 technology into the R&D environment.
- Projects ranged from small and large pilot units to electrical substations to major revamp of chilled water system.
- Coordinated activities of both in-house and outside contractor services.

#### Instrumentation Services (1984 – 1989)

• Led support group responsible for servicing all conventional and modern instrumentation for all pilot unit and laboratory research systems, including process analyzers.

Functioned as mainline R&D engineer working in small and large pilot plant operations. (1973 – 1984)

# **EDUCATION AND TRAINING**

LOUISIANA STATE UNIVERSITY – Baton Rouge, Louisiana

- Ph.D. Major: Chemical Engineering Minor: Microbiology
- M.S. Major: Chemical Engineering Minor: Economics
- **B.S.** Major: Chemical Engineering

Completed numerous career development, knowledge, skill-building and technology courses during employment at ExxonMobil Process Research Laboratories (EMPR)

# PUBLICATIONS STEMMING FROM EDUCATION

Takahashi, P.K., H.J. Toups, D.B. Greenberg, G.T. Dimopoullos, L.L. Rusoff, **Irradiation of Escherichia** coli in the visible spectrum with a tunable organic-dye laser energy source. Applied Microbiology. 02/1975; 29(1):63-7.

Greenberg, D.B., H.J. Toups, **Mass transfer to fluids in laminar pipe flow**. Transactions of the Society for Modeling and Simulation International – SIMULATION. 01/1970; 14(1):37-44.