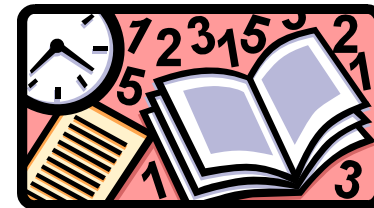


**CASA E-Leader conference, Bangkok, Thailand  
January 2-4, 2008**

*Global Outsourcing and Engineer  
Retraining: New Skills for New  
Jobs in a Modern World*

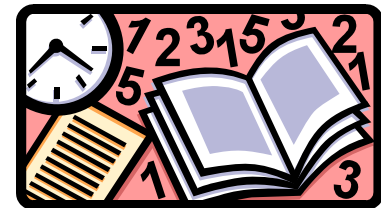
*Donald Hsu, PhD*

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## Reasons to retrain engineers

- **Outsourcing, downsizing, company gone**
- **Microwave engineers are still in demand, but defense engineers are mostly gone in New York area**
- **Software engineers, programmers, analysts are still in great demand, many jobs but no applicants**
- **Project Managers 7800+ jobs daily in banking, construction, finance, healthcare, retail, etc**



# Solution to the needs

- **1993: C and C++ Programming were offered at Jersey Central Power Light**
- **2002-2003: Java and Advanced Java Programming were offered at BAE System, Ramada Inn, Wellesley Inn**
- **2004-2007: Project Management was offered at High Performance Technology Inc and New Jersey Bulk Mail Center**
- **2005: Marketing Research was given at New Jersey Bulk Mail Center**
- **2006-2007: C# .NET Programming was offered at Avtech Institute Technology**
- **Total number of engineers/professionals trained: 220.**
- **Successful skill transfers lead to good jobs.**

# **Revenue and Cost**

- 1. Cost of room is free and instructor cost is flexible**
- 2. Revenue with 220 paying about \$455 each  
= \$100,000 USD**
- 3. Cost of Instructor and IEEE certificates  
= \$50,000 USD**
- 4. Net income \$50,000 to IEEE North Jersey  
Section.**
- 5. This surplus helps the IEEE North Jersey Section  
to run other activities**

## **Conclusion and Future Trend**

- **Win Win for IEEE and displaced engineers**
- **Office support/call center clerks: get a two-year, four-year or MBA degree**
- **IT workers: get new skills in areas that you do not know, UNIX, Oracle, Java, .NET**
- **Managers/VPs: skill transfer, be realistic and flexibility in location and pay**
- **Entrepreneurs: think global, using E-commerce to reach 6 billion customers**