

RESUMÉ



NABIL A. IBRAHIM, PH.D.
Vice Chancellor for Academic Affairs
Chief Academic Officer
Purdue University, Calumet

EDUCATION

Ph.D. /MS	Materials Science and Engineering McMaster University, Hamilton, Canada (1975)
B.Sc.	(Honor) Metallurgical Engineering, University of Cairo, Cairo, Egypt

ACADEMIC/PROFESSIONAL EXPERIENCE

Academic Experience

Vice Chancellor/Chief Academic Officer, Purdue University Calumet	2003- Present
Associate Vice President for Graduate Studies & Research/ Chief Research Officer, San Jose State University (SJSU)	1998 - 2003
Dean, School of Library and Information Science (SLIS), SJSU	1998 - 2003
Associate Dean, Professor, College of Engineering, SJSU	1990 - 1998
Chairperson, Professor, Associate Professor, Bradley University (BU)	1978 - 1990
Director: Materials Research Laboratory, BU	1980 - 1990
Visiting Assistant Professor, Post Doctoral Fellow, U of Manitoba	1974 - 1978

Academic Leadership Services

Senior Leadership Team Member, PUC	2003 - present
Chair, Academic Administrative Council, PUC	2003 - present
Chair, Academic Computing Council, PUC	2003 - present
Board Member, SJSU Foundation	1993 - 2003
CSU Taskforce on Graduate & Post baccalaureate Education	2001 - 2003
Founder and Chief Research Officer, Metropolitan Technology Center, SJSU	2000 - 2003
Founder, San Jose State University Research Institute	2001 - 2003
Member, Curriculum and research Committee, Academic Senate	1998 - 2003
Chair and Organizer, 15th CSU Student Research Competition	2000 - 2001
Chair, Council on Technical Academic Programs	1999 - 2001
Chair, College of Engineering Strategic Planning	1996 - 1998
Faculty Advisor, Minority Engineering Program	1991 - 1994
Chair, Grants and Projects Committee, SJSU Foundation	1995 - 1996
Board Member, Technology Commercialization Center, Bradley U	1986 - 1990
Chair, Dean's Search Committee, College of Engineering, BU	1983 - 1984
Member, University Strategic Planning Committee, BU	1982 - 1985
Board Member, Board for Research and Creativity, BU	1980 - 1990

Teaching

Taught 16 graduate and undergraduate courses and developed five laboratories in areas of: Mechanical Engineering, Materials Science, Design, Manufacturing, Advanced Composites, Failure Analysis, and Quality Engineering

Research

- ❖ Served as Principal Investigator in 32 research and technical projects
- ❖ Produced 21 MS Thesis/Projects
- ❖ Holds two US Patents on Advanced Orthopedic Materials and Processes
- ❖ Produced 25 publications and 30 conference presentations
- ❖ Received \$ 15,070,000 of Grant & Contract awards from federal, state, foundations and corporate sponsors

(Please see details below)

Professional Experience

- ❖ Over 18 years of experience in Technology Innovation/commercialization, Business Incubation/growth, and entrepreneurship in Illinois, Silicon Valley, and Indiana.
- ❖ Provided professional/consulting services to: IBM, Applied Materials, Lockheed-Martin, General Electric, Cal Recovery, Trans Technology Electronics, Resource Technology, Keystone Steel and Wire, Podiatry Arts Laboratory & Health Technology, Caterpillar Inc, Texas Instruments, Cummins Engines, Sherix Chemical Company, University of Wisconsin and other companies and institutions

ACADEMIC LEADERSHIP ACCOMPLISHMENTS

Purdue University, Calumet (2003 – Present)

As a Vice Chancellor for Academic Affairs and Chief Academic Officer, I have articulated a new academic vision and mission with a strategic focus on:

- ❖ Student learning,
- ❖ Faculty excellence,
- ❖ Curriculum innovation
- ❖ Partnership on regional economic development.

I have worked closely with the Chancellor, President, Board of Trustees and the Legislature to approve and fund new initiatives, in support of Purdue's Academic

mission. Following are selected achievements that I have played a leadership role in, during my 3 years of tenure at Purdue University.

1. A Student Success Network was designed and implemented to enhance student retention and graduation rates including programs for student orientation, freshman seminars, supplemental instruction and learning communities. During the last 3 years retention rate has increased by 10% and graduation rate by 18%
2. Five endowed professorships were initiated with the help of a \$ 2 M grant from Elli Lilly Foundation "Harnessing Intellectual Capital at Purdue University Calumet". The five endowed professorships included, Water Resource Management, Energy Efficiency and Reliability, Science and Technology Education, Hospitality and Tourism, and Entrepreneurship.
3. A 50,000 sq. ft. Purdue Technology Center and a 47,000 sq. ft. Academic Learning Center were built in 04/05 as part of a 400 acre Industrial Park at Merrillville, IN to help extend PUC education and economic development programs throughout NW Indiana. The Purdue Technology Center serves as a Technology Incubator for new start-up companies to help business growth and create new jobs.
4. PUC in collaboration with the City of Hammond is partnering on a new Hammond Business Incubator and Entrepreneurship Center to stimulate economic development in Hammond.
5. A new strategy for academic excellence was developed to lead PUC to the next level. Following are examples of initiatives implemented in the last two years:
 - ❖ A \$ 2,000,000 student Scholarship program to attract the "Best and Brightest" students and expand outreach program to new markets. The program attracted over 400 students
 - ❖ A center for Instructional Excellence as an infrastructure for faculty professional development and support for teaching and learning
 - ❖ A Leadership Institute for Deans, Department Heads and Directors
 - ❖ A student Honors Program
 - ❖ A student/faculty Research Program
 - ❖ An Experiential learning program to expand opportunities for student internships and summer employment
 - ❖ An Initiative to increase number of tenure track faculty and enhance the average faculty compensation. 17 new tenure track faculty were hired in 05
 - ❖ A Board of Research to support faculty scholarship and expand sponsored programs
 - ❖ A curriculum innovation initiative to encourage development of interdisciplinary programs and respond to emerging needs
6. An Office for Research and Professional Development (ORSP) was established and an Associate Vice Chancellor was hired to lead research and scholarship

7. A program for staff development was initiated with a focus on Effective communication, quality of work, responsiveness and customer service
8. Five Centers and Institutes have been developed since Spring 04 to serve as niche areas of academic excellence including: PUC Water Institute, Energy Efficiency and Reliability Center, NW Indiana Transportation Center, High Performance Computing Center and Center for Science and Technology Education.
9. A strategic collaborations with Argonne National Laboratory on applied research was established with emphasis on solving regional economic development problems related to Water Resource Management, Energy and Transportation
10. An Office of Extended and Distance Education and an Offices for Planning and Institutional Research were created to support the strategic goals of PUC
11. An Academic Computing Council was established with a goal to infuse technology into academic instruction and create a high performance learning environment
12. An Academic Development Office was created to raise funds from Foundations and the Corporate Community in support of academic programs
13. A new faculty/staff "bonus program" was initiated to reward excellence in job performance.

San Jose State University (1990 - 2003)

As Associate Vice President and Dean, I have articulated a Vision and sense of direction for Graduate Studies and Research and worked diligently with the President, Provost, Deans and Faculty to Develop and implement Strategic Plans to strengthen graduate education, instill a culture conducive to scholarship, and elevate the status of research on campus. Following are selected achievements that I have played a leadership role in, during my tenure.

1. Successful partnerships with companies in Silicon Valley such as HP, Applied Materials, IBM, Lockheed-Martin, CISCO and CADENCE were established. In 2001-03 SJSU received grants from CISCO and CADENCE totaling \$4,000,000 in support of faculty development, student scholarships and laboratory development.
2. External funds for research and sponsored programs increased by 38% from \$28,700,000 in 1998 to \$40,000,000 in 2003. In 2002 SJSU was among the top 200 universities in the country for federally funded grants.
3. Student enrollment in graduate programs increased by 49% from 5,100 in 1998 to 7,600 in 2002 while the number of first time graduate students increased by 72% during the same period.

4. A collaborative relationship was developed with NASA-Ames and the University of California to establish a "University Associated Research Center" (UARC) at NASA Research Park. This has helped expand SJSU sponsored programs and offered opportunities for applied research to SJSU faculty and students.
5. Discussions with the University of California to establish four joint doctorate programs in the colleges of Education and Engineering were initiated in 2002
6. The Office of Graduate Studies and Research initiated the development of three new Research Centers including Collaborative for Disaster Mitigation, Center for Innovation- Incubation and Commercialization, and SJSU Research Institute.
7. A \$ 2.00 M Research Enhancement Program in the form of release time and summer stipend was initiated through SJSU Foundation in May 2002 expand faculty involvement in sponsored research programs
8. An on-line "Faculty Expertise Data Base" was developed to feature faculty's intellectual capabilities in teaching, research and creative endeavor and promote joint projects with the corporate community.
9. The School of Library and Information Science doubled its graduate student enrollment, expanded its distance education program, recruited highly qualified faculty and gained national recognition. In 2003 the SLIS had the largest accredited Masters program in the country with over 900 students, 20 FTE Faculty and served the entire State of California.

Following are selected achievements that I played a leadership role in during my tenure as Associate Dean of Engineering at San Jose State University:

1. A College Strategic Plan was developed to enhance academic quality, support faculty scholarship, and strengthen ties with Silicon Valley
2. A successful dual degree MS Engineering/MBA program was developed in 1997 and offered in collaboration with the College of Business. The program has since been offered onsite at several companies in Silicon Valley.
3. A new interdisciplinary Professional Master's program in Client Server was developed in 1996 and offered to hundreds of Engineers in Silicon Valley. In 2000 the program enrolled over 300 students and became one of the largest graduate programs at SJSU.
4. The college of Engineering external funding for grants and contracts was doubled from \$1,860,000 in 1994 to \$3,800,000 in 1998 at an annual rate of over 20%. Several incentives were instituted to encourage grant development

Bradley University (1978 – 1990)

Following are selected achievements that I played a leadership role in during my tenure as Chairperson at Bradley University.

1. The Manufacturing Engineering program was developed and successfully implemented and attracted a significant number of excellent students.
2. The first ABET accreditation for the Manufacturing Engineering program was achieved.
3. The Materials Testing & Research Center was founded with major support from industry and other funding agencies.
4. A MS curriculum in Manufacturing Systems Engineering was designed and implemented.
5. Five laboratories were developed to serve instruction in Computer Aided Design, Computer Integrated Manufacturing & Robotics, Advanced Composites, Materials Testing and Physical Modeling.

FUNDRAISING/ SPONSORED PROGRAM AWARDS

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|--|------------|
| 1. Total of 16 grants while at Bradley University between 1980 and 1989
<i>From Corporate, State and Federal funding agencies</i> | \$ 844,379 |
| 2. Student and Laboratory Development
<i>SME Foundation, including \$21,875 industry matching (1990)</i> | \$ 58,240 |
| 3. Instrumentation & Robotics Laboratory
<i>NSF (1992)</i> | \$ 54,000 |
| <i>Industry Matching from HP and Adept</i> | \$ 68,000 |
| 4. Manufacturing Engineering Education Grant
<i>SME Foundation (1992)</i> | \$ 30,500 |
| 5. MSE Program Improvement
<i>SME Foundation (1993)</i> | \$ 59,000 |
| 6. In-house Degree Option Program
<i>Applied Materials (1994-1998)</i> | \$ 953,000 |
| 7. Curriculum on Mechatronics System Engineering
<i>Co PI with Tai-Ran Hsu, SJSU</i>
<i>NSF (1994-1997)</i> | \$ 313,000 |
| 8. EHS Professional Development
<i>General Electric (1997)</i> | \$ 90,000 |

9. Manufacturing Systems Engineering Program Development <i>NSF, ATE (1997-1999)</i>	\$ 200,000
10. A 2+2+2, Manufacturing Systems Engineering Curriculum Development <i>MEP, SME Foundation (1998-2000)</i> <i>Industry Matching, Lockheed/Martin</i>	\$ 167,000 \$ 130,000
11. In-house MSE/MBA Dual Degree Program <i>HP (1997-98)</i>	\$ 120,000
12. Workshop on IT Curriculum development <i>IBM, San Jose (1999)</i>	\$ 8,500
13. Grant to Develop SJSU Metropolitan Technology Center at NASA-Ames <i>CSU Chancellor (2000-2002)</i>	\$ 500,000
14. Collaborative Agreement on Information Technology I <i>NASA-Ames (2001)</i>	\$ 221,000
15. Collaborative Agreement on Engineering Research I <i>NASA-Ames Research Center (2001)</i>	\$ 196,000
16. Needs Assessment for Professional Masters Programs <i>Sloan Foundation</i>	\$ 7,900
17. Collaborative Agreement on Information Technology II <i>NASA-Ames (2002)</i>	\$ 232,000
18. Collaborative Agreement on Engineering Research II <i>NASA-Ames Research Center (2002)</i>	\$ 207,000
19. Opportunity for Indiana Initiative, <i>Ellie Lilly Foundation (2003-05)</i>	\$ 285,000
20. Enhancing student Access & success through seamless transitions <i>Lumina Foundation (2003)</i>	\$ 100,000
21. Harnessing Intellectual Capital at Purdue University, Calumet <i>Ellie Lilly Foundation (2004)</i>	\$ 2,000,000
22. Indiana Water Institute <i>US Department of Energy (2005-2006)</i>	\$ 1,000,000
23. High Performance Computing Grid and Envision Center <i>Co PI with J. Buttom Purdue WL and Notre Dame University</i> <i>US Department of Energy (2005)</i>	\$ 1,500,000
24. High Performance Computing Grid and Envision Center <i>Co PI with J. Buttom Purdue WL and Notre Dame University</i> <i>Federal Earmarks, (2006) allocation</i>	\$ 5,000,000
TOTAL	\$15,070,818

PUBLICATIONS

1. "The Kinetics of Fatigue Softening of Iron-Carbon Alloys," Proceedings of the Third International Conference on the Strength of Metals and Alloys, Cambridge, England (1973) (with C.M. Sargent and J.D. Embury).
2. "The Bauschinger Effect in Single-Phase BCC Materials," *Mat. Sc. & Eng.*, 19, 147 (1975) (with J.D. Embury).
3. "The Role of Irradiation on the Deformation and Fracture of Polycrystalline MgO," *Phil. Mag.*, 34 701 (1976) (with K. Tangri).
4. "Effect of Grain Size on Acoustic Emission Produced During the Early Stages of Deformation," Second International Conference on Mechanical Behavior of Materials (ICM-11) Boston, Massachusetts, U.S.A. (1976) (with K. Tangri).
5. "Deformation Resistance and the Flow Curve in High Density Polyethylene," *Mat. Sc. & Eng.*, 30 175-180 (1977) (with D. Shinozaki and C. Sargent).
6. "Instability of Plastic Flow in Fatigue," Proceedings of a Conference on Wear and Fracture Prevention, ASM, 221-236, (1981).
7. "Analysis of Fatigue Softening," Proceedings of 103rd Winter Annual Meeting ASME, Phoenix, Arizona, November 14-19, 1982.
8. "Fatigue Resistance of Dual-Phase Steel" 2nd Int. Conf. on Production Eng., Design and Control, Alexandria, Egypt, Dec. (1983.)
9. "Fatigue Fracture in a Martensitic-Based Dual-Phase Steel," *Fatigue 84* The Second International Conference on Fatigue and Fatigue Thresholds, The Univ. of Birmingham, UK, Sept. (1984) (with C. Choi).
10. "A Study of Bauschinger Effect in Dual-Phase Steel," *Transactions of MS-AIME 1985*, Symposium on Deformation Textures, Yield Surfaces and Formability, Toronto, October (1985.)
11. "Determination of J_{IC} from Chevron-Notched Three Point Bending Specimens in Elastic-Plastic Range", *The Mechanism of Fracture*, Ed. V.S. Goel, Publisher ASM, pp. 119-125, (1986) (with B. Biner and T. Ngo).
12. "Growth of Short-Cracks Emanating from Blunt-Notches in Dual-Phase Steel", *The Mechanism of Fracture*, Ed. V.S. Goel, Publisher ASM, pp. 127-133, (1986) (with B. Biner and A. Samkary).
13. "Deformation Characteristics of Dual-Phase Steels", *ASM International Materials and Processing for the Factory of the Future*, pp. 16-51, Jan. (1987) (with C. Choi).

14. "Investigation into the Machinability of Dual-Phase Steel", Third International Conference on Computer-Aided Production Engineering, June 1-3 (1988) Ann Arbor, Michigan.
15. "Advancing Manufacturing Science Through Research", SME Foundation Grantee Workshop, AUTOFACT , COBO Hall, Oct 31-Nov 2 (1989) Detroit , Michigan
16. "Concepts of a Comprehensive Curriculum in Manufacturing Engineering", Key Strategies For Planning and Teaching Automated Manufacturing, AUTOFACT , COBO Hall Oct 31-Nov 2 (1989) Detroit , Michigan
17. "Concepts of Simultaneous Engineering: An Academic Perspective", Pacific Conference on Manufacturing, (1990) Melbourne, Australia
18. "A Model for Curriculum Design in Manufacturing Engineering", Key Strategies For Planning and Teaching Automated Manufacturing, SME/CASA, (1990) Chicago, Illinois
19. "Trends In Global Manufacturing", Al-Azhar, second International Conference, Cairo, Egypt (1993)
20. Advancing Quality Function Deployment With Case-Based Capabilities, Journal of Design and Manufacturing, 4, 265-280 (1994) with A. Araya
21. Seamless Pathways in Manufacturing Engineering, NSF, Advanced Technology Education Conference, Alexandria, VA (2000)
22. An Innovative 2+2+2 Program, Lessons Learned, American Society for Engineering Education, San Diego (2001)
23. Enhancing Research and Scholarship in Master's Granting Institutions, Western Association of Graduate Schools, Seattle, WA (2002)
24. Quality Improvement in Student Services, A Case Study, CSU QI Symposium, Foster City, CA (2002)
25. Partnership for Success in Engineering, Proceedings, ASEE Conference publications, Nashville, Tennessee, June (2003)

PRESENTATIONS

1. "The Effect of Deformation Temperature on the Stability of Dislocation Arrangement in Iron", The 21 Canadian Metal Physics Conference, Kingston, Canada (1971) (with J.D. Embury).
2. "Some Aspects of the Stability of Plastic Flow in Cyclic Deformation", The 22nd Canadian Metal Physics Conference, Kingston, Canada (1972) (with J.D. Embury).
3. "The Kinetics of Fatigue Softening of Iron-Carbon Alloys", Proceedings of the Third International Conference on the Strength of Metals and Alloys. Cambridge, England (1973) (with C.M. Sargent and J.D. Embury).

4. "Microstructural Instability in Iron-Carbon System During cyclic Deformation", The 23rd Canadian Metal Physics Conference, Kingston, Canada (1973) (with C.M. Sargent and J.D. Embury).
5. "Some Aspects of the Deformation Process in Polycrystalline MgO", The 25th Metal Physics Conference, Kingston, Canada, (1975) (with K. Tangri).
6. "Grain Size Dependence of the Acoustic Emission Threshold Strain", The 27th Canadian Metal Physics Conference, Kingston, Canada (1977) (with K. Tangri)
7. "Uses of Acoustic Emission in the Study of Deformation and Fracture", First Prairie Materials Science Meeting, University of Saskatchewan, Saskatoon, Canada, (1977.)
8. "Instability of Plastic Flow in Fatigue of Precipitation Hardened Steel", ASM Seminar on Wear and Fracture Prevention, Peoria, Illinois, May 19-20, (1980.)
9. "Fatigue of Dual-Phase Steel", The 32nd Canadian Metal Physics Conference, Kingston, Canada, (1981), (with L. Wong).
10. "A Study of Bauschinger Effect in Dual-Phase Steel", 32nd Canadian Metal Physics Conference, Kingston, Canada, (1982.)
11. "Computer-Aided Materials Characterization", 33rd Canadian Metal Physics Conference, Kingston, Canada (1983), (with M. Helaly).
12. "Fatigue Softening in Dual-Phase Steel", Poster Session #8, Fatigue 84, The Second International Conference on Fatigue and Fatigue Thresholds, The University of Birmingham, U.K., Sept. (1984.)
13. "A Study of Wear and Fatigue in a HSLA Steel", 21st Meeting Society of Engineering Sc. Inc., Virginia Polytechnic Institute, Oct. (1984), (with G. Romack).
14. "Manufacturing: A New Frontier in Engineering Education", Women in Engineering Conference, Chicago, Illinois, Nov. (1985.)
15. "Deformation Characteristics of Dual-Phase Steel", ASM-International Seminar, Materials and Processing for the Factory of the Future, Peoria, Illinois, October (1986.)
16. "Manufacturing Education: Present and Future" SME, 1st Conference on Topics in Manufacturing, Peoria, Illinois (1987)
17. "Current Development in Advanced Composites", SME 1st Conference on Topics in Manufacturing, Peoria, Illinois (1987.)
18. "Concepts of Design For Manufacturability", 41st Annual Earthmoving Industry Conference, SAE, Peoria, Illinois, April 3-5 (1990)
19. "Trends in Manufacturing Education", Manufacturing International '90 Conference of ASME, (1990) Atlanta, Georgia
20. "Integration of Product/Process Design into Engineering Curricula", Aerospace Technology Conference, SAE, September (1990), Long Beach, California

- 21 "Design of a Modern Curriculum For Lower Division Engineering Core, "First Annual CSU Conference on Innovation In Engineering Education, April (1991), San Jose, California
- 22 " Toughening of Composite Structures", The Second Annual Review of Engineering Research, November (1990), SJSU, San Jose, CA
- 23 "Fracture Control In Thermally Cycled Composites", The Third Annual Review of Engineering Research, November (1991), SJSU, San Jose, CA
- 24 "Six Sigma: Design For Competitiveness", SME Chapter Meeting, December (1991) San Jose, CA
25. An Academic Perspective on Concurrent Engineering, ORSA/TIMS (1992), San Francisco, CA
26. Implementing a 2+2+2 Curriculum on Information Systems at SJSU, NSF Fifth National ATE Conference , Washington, DC (1998)
27. An Integrated Curriculum to Address Competency Gaps, International Conference on Manufacturing Education, San Diego, CA, (1998)
28. Best Practice in Managing Graduate Admission
Council of Graduate Schools, San Diego, CA, December 2001
29. "Manufacturing Engineering, A Seamless Pathway", CD-ROM Pacific Media, Santa Clara, CA April 2001
30. How to Improve Quality of Student Services in Graduate Studies, Western Association of Graduate Schools, Seattle, WA, April 2002
31. Boyer's Model of Scholarship, AASCU Conference for Chief Academic Officers, Snow Bird, Utah, July 05

INVENTIONS, US PATENTS

- 1) Composite Orthotic Material and Method:
Commissioner of Patents and Trademarks, United States Patent
Number: 4,774,954, Issued Oct. 4, 1988
- 2) Method of Forming Custom Orthotic Devices:
Commissioner of Patents and Trademarks, United States Patent
Number: 4,813,090, Issued Mar. 21, 1989

HONORS AND AWARDS

- Peoria Area Outstanding Engineer of The Year Award 1989
- Bradley University's Best Award 1990
- Honor Society, Phi Kappa Phi 1988-1990
- Certificate of Appreciation, MSE, Education Foundation 1989
- Metallurgical Engineering Scientific Achievements 1962-1965
- National Scholastic Scholarship 1960-1962

CIVIC & PROFESSIONAL AFFILIATIONS

Board Member, Purdue Technology Center, Merrillville, IN	2003- Present
Founding Member, NW Indiana Innovation Forum	2005- Present
Member, Schererville, IN Chamber of Commerce	2004-Present
International Collaboration Taskforce, Council of Graduate Schools	2002-2003
Member, International Federation for Information Processing, Technology for the Environment, Geneva, Switzerland	1995 - 2003
President, Silicon Valley Engineering Council	1998 -1999
Board Member, YMCA, Metro, San Jose	1999 -2003
Member, Rotary International, San Jose CA, Hammond, IN	1996 - present
Member, American Academy for Mechanics	1985 - 2000
Member, American Society of Engineering Education	1984 - present
Member, Society for the Advancement of Materials & Processes	1988 - 2001
Manufacturing Engineering Education Foundation: Operating Committee Member (SME International)	1988 - 2000
Member, Association of Professional Engineers, Manitoba	1978 - 1982
Executive Committee Member, SME, Peoria Chapter	1988 - 1990
Executive Committee Member, ASM, Peoria Chapter	1983 - 1988