American Society of Engineers of Indian Origin
Welcomes You to
The 20th Annual ASEI National Convention

Entrepreneurship for a Waking Giant...
Indians in the USA

Awards • Recognitions • Scholarships

Cleveland, OH
August 30–September 1, 2003
August 13, 2003

MESSAGE

I extend my heartiest felicitations to the American Society of Engineers of Indian Origin (ASEI), Ohio Chapter, on the occasion of their 20th Annual Convention in Cleveland on August 31, 2003.

The theme for this year’s Convention “Entrepreneurship for a Waking Giant...Indians in the USA” is particularly apt. India is engaged with the United States as never before, in myriad fields. This growing engagement has been reflected in a record upsurge in trade, commerce and investments between the two countries. The economic and commercial potential of India is limitless: India is indeed a Waking Giant. I am pleased that ASEI and its members continue to play a dynamic role in promoting the bilateral Indo-US economic relationship.

I wish the ASEI Convention all success.

(Lalit Mansingh)
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Errors and omissions: Please accept our apologies for any errors and omissions.
Raj Soin was born in New Delhi, India, in 1947. He graduated from Delhi University in 1969 with a bachelor's in mechanical engineering. After graduation, he came to the United States with barely enough money to make his way to Bradley University, where he earned a master of science in industrial engineering in 1971, while working as a research assistant. Raj has continued his post-graduate studies in business and finance at Bradley University, Illinois State University and the advanced management programs at Harvard University and The Wharton School of the University of Pennsylvania. In 1978, Raj and his wife, Indu, proudly became American citizens.

Raj started his business career in 1971 with Firestone Tire and Rubber Co. as an industrial engineer and worked at various production facilities until 1978. In that year, Raj joined Williams International as manager of corporate systems. While at Williams, his responsibilities were expanded to include the departments of industrial engineering, operations planning, scheduling and management systems.

While at Williams, Raj tried his hand at a couple of different business ventures and, like most entrepreneurs, it took him a while to find his stride. In 1984, Raj decided to start another business and devote himself full time to the venture, which he named Modern Technologies Corp. (MTC).

Raj and Indu started MTC themselves, with $1,700 in cash, a handful of credit cards and a dream. MTC was founded with the idea of providing engineering and technical services to the U.S. Department of Defense, but quickly became an incubator that has spawned numerous businesses in a variety of industries.

From its inception, MTC has grown at an exceptional rate and was hailed as one of the fastest-growing companies in the United States by Inc. magazine for four consecutive years. In June 2002, MTC had an initial public offering; it is listed on the Nasdaq. Raj is chairman of the board. Headquartered in Dayton, MTC has sales in excess of $140 million and employs more than 1,100 people in 25 cities in 18 states. MTC is a provider of engineering, management and technical services to a variety of Department of Defense, federal government and commercial customers.

No mention of Raj Soin's history would be complete without a mention of his charitable exploits. Mr. Soin feels a real responsibility to give something back to his community and he has done that, not only with his time but also with his pocketbook. A good example is Soin's role as the first president and founding trustee of the Ohio-India Project. Two of the local initiatives of the Ohio-India Project are Ghandi House, a transitional house for women in need, and the Annual Day of Caring, which started as a local event and is now conducted in several states with expectations of becoming a national program.

In August 2000, the business college at Wright State University was renamed the Raj Soin College of Business in honor of his accomplishments and support of the university.

Raj and his wife, Indu, live in Beavercreek, Ohio, with their two sons, Vishal and Amol. Raj enjoys playing golf, flying private airplanes and going on family vacations.
It is the dawning of the age of "ME, INC.". The concept is to prepare every worker/professional to think as an entrepreneur whether he/she is looking for employment or starting his/her own business venture. It is important to work smart and this requires knowledge and not muscle. In the present environment, one needs to apply SMART technology, which means

Specific: one needs to be specific in one's goal setting.
Measurable: your progress should be measurable.
Achievable: make sure that the goal is achievable.
Results: produce results, not reasons
Trackable: make sure that your results are trackable

**Discipline is the Key**

Our other focus will be to emphasize that discipline is the key to achieving your goal. Evaluate your habits in light of your goal and determine the right mix of the four options available to you from the Personal Matrix to develop new habits. Many times we get trapped doing the same thing over and over, expecting different results. Remember it takes 21 days to develop a new habit. There is a lot of truth in the saying:

_Sow an act, and you reap a habit,_
_Sow a habit, and you reap a character,_
_Sow a character, and you reap a destiny._

**The Concept of ME, Inc.** is a reflection of Daniel Pink's highly acclaimed book entitled "Free Agent Nation: The future of working for yourself". According to Daniel Pink, *The Organization Man* is history. Taking his place is America's new economic icon: the "free agent" — the job-hopping, tech-savvy, fulfillment seeking self-employed independent worker. Already 30 million strong, these new "dis-organization" men and women are transforming America in ways both profound and exhilarating.

In this landmark book, Daniel H. Pink offers the definitive account of this revolution in work. He shows who these free agents are — from the marketing consultant down the street to the home-based mom-preneur to the footloose technology contractor — and why they've forged this new path. His entertaining and provocative account of the new frontier of work reveals how America's independent workers are shaking up all our institutions — from politics to education to the family.

Start right now: as of this moment you're going to think of yourself differently!

You are not an "employee" of General Motors
You are not a "staffer" at General Mills
You are not a "worker" at General Electric OR
A "human resource" at General Dynamics (oops, it's gone!)
Forget the Generals!

You don't "belong to" any company for life, and your chief affiliation isn't to any particular "function." You are not defined by your job title and your job description.

Starting today you are a brand "ME, Inc."
You are in charge of your brand. There is no single path to success. And there is no one right way to create the brand called "ME, Inc." except this: Start today, Or else.”

*Paramjit Singh*
Memorandum of Understanding (MOU)

An intent of cooperation is made between the Society of Automotive Engineers, India (hereinafter “SAE India”), a society registered in India and operating at No. 1, Ground Floor, ISTE Professional Center, Gandhi Mandapam Road, Chennai- 600 025, India and American Society of Engineers of Indian Origin (ASEI) a non-profit organization registered in the United States of America, operating at 7269 Wade Bridge Dr., Canton, MI 48187, USA.

Objectives

Whereas, SAE India is a technical society whose purpose is advancing the skills and knowledge of the engineering community from industry, academia, and government in a manner which serves India primarily and its strategic partners, and

Whereas, ASEI vision is to be a nationwide network of engineers of Indian Origin, a forum to assist members in advancing their careers, a facilitator of technology transfer between the USA and India, and a national professional organization with the goal of “service to its members”,

Whereas, SAE India is desirous of providing its members and the engineering community in general and the mobility community in particular, opportunities to grow professionally and thereby make India a true global player by reaching out to technical organizations particularly those run by people of Indian origin and seeking active collaboration and support in pursuing programs of common interest,

Whereas, ASEI is desirous of helping India in achieving global prominence via technology transfer and become World leader in various industry sectors including mobility sector,

Now, therefore, in consideration of the mutual understanding and agreement, SAE India and ASEI agree to cooperate with each other in the following areas:

a) Co-sponsor of or support to Technical meetings, workshops, and Technical Conventions in India as well as USA - by participating, contributing papers, and supporting the event in anyway that is agreeable to SAE India and ASEI.

b) Technical Help: By making technical presentations / technical talks to SAE India members and non-members during visit to India (either on a free or a reduced cost basis, to be agreed upon in advance by both parties).

c) Consulting assignments: to be undertaken on behalf of SAE India

d) Support to Student activities: Act as advisors on volunteer basis, provide technical and/or financial support

e) Information support: By providing journals, technical books, articles to SAE India library

f) Collaboration with SAE India Foundation: By instituting or contributing towards scholarships

g) Provide WEB links on each other’s WEB sites: ASEI will provide the WEB Link to SAE India and SAE India will in turn provide the WEB Link to ASEI for mutual support and communication link with each other.

h) Promotion of ASEI Scholarships: SAE India will publicize the ASEI Scholarships on SAE India WEB sites and all other official communication channels.

i) Opportunity to participate in Tradeshows: SAE India shall provide ASEI opportunities to participate in SAE sponsored tradeshows and Technical conferences.
American Society of Engineers of Indian Origin

j) Reciprocal arrangement for board seat: ASEI and SAE India will discuss the possibility of instituting at least one Board seat on each others organization.

k) Any other area of mutual interest not covered above.

Goals

SAE India/ASEI relationship will be aimed at meeting and exceeding the expectations of members of both societies for the greater good of India and the United States of America.

- ASEI could support, via the Indian Chapters, SAE India in any or all of the Hands-on-Training programs to Indian students in India by providing material and moral support.

- Technical Conventions and workshops: ASEI members visiting India could contact SAE India and make technical presentations, or give a talk on a technical subject of their interest at one of the section meetings and technical conventions. SAE India through SAE shall provide speakers to support ASEI meetings and ASEI Annual National Convention in USA.

- ASEI can co-sponsor SAE India mobility conference and provide support in terms of presenting papers and participation.

- SAE India is constantly looking for support for publications: ASEI members can send publications, sponsor SAE India newsletters, write articles etc.

- SAE India Foundation: We have established a foundation for supporting Indian students with scholarships and other forms of assistance to enrich their knowledge. ASEI could establish some scholarships for Indian students or donate money and make use of the tax advantages to establish a program.

- Establish and nurture closer interaction between the two societies so that we could maximize benefit to students of Indian origin living in the US and the economically challenged but highly deserving students of India. SAE India can play an important role of a strategic partner in identifying students from India to participate in ASEI programs.

- SAE India Affiliate and the Foundation are regularly conducting student competitions in different parts of India and are in need of funding and technical support from the Indian corporate sector and overseas sources.

Now, heretofore the following signatories attest the above stated objectives and goals:

Signed on this day of Saturday, August, 30, 2003 at Cleveland, Ohio, USA.

For SAE India

Signature:..............................

Dr. K. Kumar
President – SAE India

Signature:..............................

Murli M. Iyer
Member – SAE India Managing Committee
& Chief Liaison - SAE International & SAE India

For ASEI

Signature:..............................

Dr. Ravi Rout
Chairman - ASEI

Signature:..............................

Jagannadhama Kottha
President - ASEI
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20th Annual National Convention

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American Society of Engineers of Indian Origin

MEMBERSHIP APPLICATION

Name: ____________________________

Type of membership
☐ Regular ($30/yr) ☐ Associate ($30/yr) ☐ Life ($250)
☐ Corporate ($250/yr) ☐ Student ($10/yr)

Company Affiliated with: ____________________________

Address: (Home/Office)

Street: ____________________________

City: _______ State: _______ Zip: _______

Phone: ____________________________

E-Mail: ____________________________ WEB Address: ____________________________

Years of experience: ☐ 0-1 ☐ 1-5 ☐ 5-10 ☐ 10-20 ☐ 20+

Degrees acquired:
☐ Bachelor's in ____________________________ ☐ Master's in ____________________________ ☐ Doctorate in ____________________________

Alma mater in India: ____________________________ Class of _______

Alma mater in US: ____________________________ Class of _______

Educational Background
Check all that applies

☐ Aerospace
☐ Architecture
☐ Business
☐ Chemical
☐ Civil
☐ Computer Sciences
☐ Electrical/Electronics
☐ Industrial
☐ Information Technology
☐ Mechanical
☐ Sciences
☐ Biotech/Bio-Medical
☐ Other, please specify

Please check your job title

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☐ Engineer/Scientist
☐ Manager/Director
☐ President/V.P.
☐ Prof./Assoc./Asst.
☐ Programmer Analyst
☐ Systems Engineer
☐ Systems Manager
☐ Other, please specify

Please check your job function

☐ Accounting/Finance
☐ Administration/Mgmt
☐ Consulting
☐ Education/Training
☐ Design/Drafting
☐ Engineering
☐ Manufacturing
☐ MIS/DTP
☐ Purchasing
☐ Quality/Process
☐ R&D
☐ Sales/Marketing
☐ Telecommunication
☐ Web Design
☐ Other, please specify

Please make your check payable to ASEI Cleveland Chapter and mail to:
ASEI Cleveland Chapter, Attn: Member Services
P.O. Box 21307, Cleveland, OH 44121

Amount enclosed for membership: $________

Please check the committees in which you like to join to offer volunteer services for ASEI.

☒ Membership
☒ Activities
☒ 2003 Convention in Cleveland
☒ Newsletter
☒ Student Chapter
☒ Corporate Network

Signature: ____________________________ Date: ____________________________
Prashant Chopra
Chief Guest

Prashant is the Director for Case Labs at Case Western Reserve University. In this role, Mr. Chopra leads the research and development strategy for Case Western Reserve University Information Technology Services and steers next generation of development on cutting edge technologies. Mr. Chopra provides oversight to multiple development projects and is responsible for the architecture to be used by projects such as such areas as myCASE portal, enterprise application integration, voice-over-IP, streaming media, wireless networking, IPTV, videoconferencing, and collaboration. Prior to his involvement with Case, Mr. Chopra was involved as the Chief Architect in research and development projects at California State University. These projects included enterprise portals, wireless campus networks, video-over-IP, and voice-over-IP. Prior to is work at CalState, Mr. Chopra spun out a higher education enterprise portal company from Columbia University and served as its Chairman and Chief Strategist. Under Mr. Chopra’s guidance, the venture successfully raised 3 rounds of equity financing. As Chief Strategist, Mr. Chopra’s responsibilities included design and implementation of web-based and wireless intranet portals and wireless infrastructure for colleges and universities. Mr. Chopra was also responsible for directing product development strategies and guiding the overall vision of the company. Mr. Chopra also serves on the Board of Directors of the Higher Education Knowledge and Technology Exchange (HEKATE), a not-for-profit organization whose mission is to promote the creative integration of emerging technologies and active-learning practices. Its members are individuals and organizations in technology, pedagogy, publishing, research, and education services, who are inspired by the possibilities of creating scalable, cross-national learning communities. Mr. Chopra majored in Economics and Theology while at Columbia University.

Award Winners

Entrepreneur of the Year
Rajesh Soin

Engineer of the Year
M.K. Krishnamurthy

Graduate student of the Year
Arun Kumar

Undergraduate student of the Year
Arun Kottha

Excellence in Service
Paramjit Singh
Chandrika Prasad
Nirdosh Reddy

Outstanding Service
Shikha Gambhir
The Executive Board and Board of Trustees of the Federation of India Community Associations (FICA), Congratulates the ASEI for its 20th Successful Convention and formation of the ASEI chapter in Cleveland Ohio.

Guru Bhandari
Satish Parikh
Indu Velayudhan
Monisha Kar
Ramesh Mirakhur
Rahul Sethi
Jag Kottha
Mohan Bafna
Vijaya Emani
Sathnam Sandhu
Shashin Shah
Vijay Patel
Surinder Singh Chauhan

Usha Ahuja
Chandra Haria
Shanta Kampani
Dharminde Kampani
Sukumar Roy
Lal Jaitia
Paramjit Singh

Om Julka
Chittaranjan Jain
Sunil Dutta
Iqbal Ahmed
Ajit Shah

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WITH BEST COMPLIMENTS
TO
THE 20TH ANNUAL CONVENTION OF ASEI

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Jag Kottha
Ravi Rout
Ramu Ramamurthy
Jehana Jalil
Shikha Gambhir
Namrata Boveja
Jagdish Agrawal
Ravi Sharma
Tim Madhanagopal

Other Board members are Vipin Mehta, Ved Agrawal, Laveen Kanal, Vinai Hudda, Puja Singhal and Lalith Wanchoo
With best wishes and compliments
to
20th Annual Convention of ASEI
From
American Society of Engineers of Indian Origin
Atlanta Chapter

www.aseio.org

President: Sathya Hanagud
2536 Flair Knoll Ct. N.E.
Atlanta, GA 30345
Phone
404-321-3599 (H)
404-894-3040 (O)
E-mail
hanagud@aerospace.gatech.edu

For ASEI Atlanta Chapter’s upcoming activities
Contact any of the following Executive Committee Members and Directors
Satya Hanagud 404-321-3599
Manohar Singh 404-471-5435

With best wishes and compliments
to
20th Annual Convention of ASEI
From
American Society of Engineers of Indian Origin
Buffalo Chapter

www.aseio.org

President: Vinay Pandit
Buffalo, NY 14221
Phone: 716-634-3056
E-mail
vpandit@sbu.edu

For ASEI Buffalo Chapter’s upcoming activities
Contact any of the following Executive Committee Members and Directors
Satish Mohan 716-689-4025
Virendra Singh 716-634-9592
Ratanjot Singh Sondhe

In 1968, Ratanjot Singh Sondhe came to the United States with a mission of serving humanity by living life according to universal values and principles. In order to do so, Mr. Sondhe started a company that was based on universal laws, principles, ethics and values. Working towards his Ph.D. in Polymer Chemistry at the University of Akron, Mr. Sondhe founded POLY-CARB, Inc., a material science company specializing in high-tech and environmentally safe solutions for infrastructure restoration and preservation. Thirty years later, Mr. Sondhe is changing the direction of business with his modern-style of leadership in which there are no bosses or titles. Instead, each member is guided by the company's and their individual personal mission statement and clearly defined operating principles. All members are cross trained in all disciplines and work as management teams. Each management team is given a clear focus and total freedom to create and be responsible.

For the past nine years, Mr. Sondhe has hosted a main stream radio talk show, Visions which is broadcast daily via commercial radio and cable television in Cleveland, Ohio and worldwide via the internet. Mr. Sondhe is also on television worldwide with his weekly television program broadcast in 156 countries. Outside of his many business ventures, Mr. Sondhe is very active in many community, social and business organizations including the American Red Cross, BASE (Business Association of Sikh Entrepreneurs) of which he is founder and Chairman of Trustees, Operation Keepsake, Urban League of Greater Cleveland and AIABG (Asian Indian American Business Group), which he founded nearly twenty years ago. Mr. Sondhe devotes considerable energy towards meditating, teaching, lecturing and writing. He has also delivered keynote address presentations at national and international conferences and to Fortune 500 companies.

Topics discussed during the radio show have inspired him to write and publish. His published works include an award-winning presentation entitled 'Philosophy of Quality' at an international conference and a book, Secret of Success. Mr. Sondhe is in current development of several books to be published in 2003.

Today, Mr. Sondhe is Chairman and C.E.O. of POLY-CARB, Inc. and Chief Executive Officer of the Highest Entrepreneurial Leadership Program, Inc. (HELP).
Program

Welcome and Plenary Session
Subodh Chandra
Law Director, City of Cleveland

Ratanjit Singh Sondhe

Morning Technical Sessions

Lunch
Keynote Speaker
Anthony Yen

Special Speaker
Kathy Baker

Afternoon Technical Sessions

Reception and Banquet
Introduction of National ASEI Board
Awards and Scholarships

Chief Guest
Prashant Chopra
Keynote Address
Monte Ahuja

Entertainment by
The Manoranjan Group
Success Factors in Entrepreneurship

Session Chair: Vivek R. Gupta, V.P. & Sr. Officer
Global Automotive Division, A. T. Kearney, Cleveland, Ohio

Nurture Your Life-Networks
Dr. Sanjeev Maddia, Partner, Deloitte Consulting, Chicago, IL

Importance of a good Board of Directors in developing an entrepreneurial business
Dr. Raj Aggarwal, Firestone Chair and Professor of Finance, Kent State University, Kent, OH 44242

Dr. W. Benoy Joseph, Associate Dean for Academic Affairs and Professor of Marketing, James J. Nance College of Business Administration, at Cleveland State University.

Surviving the Early Years
Dr. Jacob Mathew, President, ICBS, Inc., Chief Editor: holisticonline.com, firstholistic.com, and ecomhelp.com

Pro-active marketing with accountability: The key to your entrepreneurial success.
Paramjit Singh, President, Productive Group, Shaker Heights, Ohio

Engineering

Session Chair: Ray Knight, Executive
Starting a small regulations for Electrica
Kiran C. Patel, New Building
William Lewis, Systems Cost
How to survive
The steps
Raman S. Patel, President
Jagdish Agrawal, Senior

Entrepreneurship: Making It Work
Session Chair: Chittaranjan Jain, Professor Industrial Engineering & University
Ombudsman, Cleveland State University, Cleveland, OH

Entrepreneurship: What they do not teach you in your MBA
Dr. Narsi L. Narasimhan, CEO, Paalam, Inc., Atlanta, GA

The Science Of Getting Rich
Ron Finklestein, Managing Partner, AKRIS, LLC
Regional Director, NECOSA Business & Technology Group at Canals Place, Akron, OH

Leap of Faith: Pursuing the Dreams
Shashikant Joshi, President, Great India Publishers, Solon, OH

“Reincarnation” - Is it a rebirth of your physical career or a rebirth of your consciousness within the same career?
Jazz Mandir, Business Development Manager, 3SG, Solon, OH

Opportunities: Information Technology & Engineering

Critical Role of Biometric Technologies in Homeland Security
Dr. Sreela Sasi, Assistant Professor, Computer and Information Science
Gannon University, Erie, PA.

Issues in Software Development: Outsourcing, Software Configuration Management, and Life Cycle Considerations
Tirumala Prasad Tadi, President, Rosh Tech Inc., Boston, MA

Development Of Self-Actuating In-Flight Deicing Structures
Suresh V. Venna, Dept. of Mechanical Engineering, University of Akron, Akron, OH

Keynote Speaker: Anth
Special Speaker: Kathy Baker, Author of “Leaving Adversity Perspectives on is”
**Opportunities: Fuel Cells**

Session Chair: Jagdish Agrawal, PE, MBA
Project Manager, Skanska USA Building Inc., Southfield, MI

Biodiesel: An Environmental Evaluation
Hari Bindal, Senior Environmental Engineer
U.S. Coast Guard, Department of Homeland Security, Washington, DC

Opportunities in Fuel Cells - A Review
Dr. Ravi Sharma,
General Motors, Detroit, MI

**Opportunities: Biotech/Bio Medical Engineering**

Session Chair: Dr. Surajit Khanna
Co-chair: Snimar Hansra
Global Quality Assurance Manager
Weatherhead School of Management
Case Western Reserve University, Cleveland, OH

Biomedical Engineering: An interdisciplinary concoction for better health care
Arun N. Kumar, Ocular Motility Laboratory, Dept. of Biomedical Engineering
Case Western Reserve University, Cleveland, OH

Biomedical Engineering in ion Channel Research: Unraveling Mysteries, Developing Cures
Gayathri Krishnamoorthi Department of Biomedical Engineering
Case Western Reserve University, Cleveland, OH

Managing Quality in GMP Environment
Dr. Surajit Khanna

Bharat Bhusan Biswal, Ph.D. New Jersey

Quality System Inspection Technique (QSIT)
Robert Turcotte, Phillips Medical Systems Inc., Cleveland, OH
Jay B. Shah, PE
President & Chairman
Nominated two consecutive years for Ernst & Young's Entrepreneur of the Year

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Our programs involve reciprocal or two-way trade where the export of locally produced engineering products being purchased by our clients is linked to US product sales into the overseas country

Global Outsourcing
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Medical Polymers 2003 - December 8-9 - Baltimore, MD

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Please Visit Our Website For More Info
Jagdish M. Agrawal is a Senior Mechanical Estimator/Project Manager Mechanical Systems Cost Estimations at Skanska USA Building Inc. Mr. Agrawal is a Professional Engineer and has an MBA. He has worked four years on General Motors Production Production Facilities new and updates/revision, three years in Ford Motor Company new and existing facilities, one year on Chrysler Production Facilities modifications, ten years with Barton Malow Company, three years with Walbridge Aldinger and one year at Skanska USA. The later three are large Construction Management companies in the State of Michigan. He has been in Construction and Construction Management for over 20 years in USA.

Hari Bindal is a senior environmental engineer with the U.S. Coast Guard in Department of Homeland Security, in Washington DC. Mr. Bindal founded the American Society of Engineers of Indian Origin (ASEI) in May 1983. He also founded ASEI National Capital Chapter (ASEI-NCC) and helped found several other chapters of ASEI. Mr. Bindal also serves as a member, appointed by the Governor, on the 'State of Maryland Controlled Hazardous Substance Advisory Council' for a six-year (1999-2005) term.

Bindal received a Bachelor's degree in Civil Engineering (1966), a Master's in Public Health Engineering (1972), and another Master's in Environmental Engineering.

Abstract of Presentation
Biodiesel: An Evaluation For Use In USCG Vessels
Biodiesel is a mono alkyl ester based fuel, which is derived from vegetable oils or animal fats. Its production is triggered as an alternative fuel to reduce dependency on petroleum based diesel.

This evaluation of biodiesel discusses the environmental benefits, regulatory and operational requirements, storage stability, and cost per gallon of biodiesel.

Jon S. Gerhardt obtained his M.B.A. in International Business from Kent State University in 1997. He also completed his Ph.D. in Mechanical Engineering from University of Cincinnati in 1971 after his B.S and M.S from the same school. He currently serves as Adjunct Design Associate Professor in Department of Mechanical Engineering at The University of Akron. His expertise is in the areas of machining, vibrations, dynamics, fatigue, measurements and tire technology.

Vivek R. Gupta is the Session Chair of Success Factors in Entrepreneurship. Mr. Gupta is a Vice President of A.T. Kearney and currently the senior officer within its Global Automotive practice. Prior to this assignment, Mr. Gupta lead the A.T. Kearney Communications & High-Technology Practice in the Central/Mid-West region. He also helped start and manage A.T. Kearney's $250 million venture group in 2000/2001. During his 20-year career, Mr. Gupta has spent 13 years as a management consultant with A.T. Kearney. Mr. Gupta holds an EMBA from Columbia Business School, an M.S. from the University of Oklahoma and a B.Tech (Hons) from Indian Institute of Technology (IIT), New Delhi.

Benoy Joseph is Associate Dean for Academic Affairs and Professor of Marketing at Cleveland State University's James J. Nance College of Business Administration. He specializes in services marketing, strategic market planning, consumer behavior, and business-to-business marketing.

Dr. Joseph earned the bachelor's and MBA degrees from the University of Dayton and a Ph.D. in marketing from Ohio State University. Before entering academics, he worked for the marketing division of NCR Corporation.

An active consultant to various business and nonprofit organizations, Benoy specializes in designing and implementing customer and employee satisfaction studies for industrial and consumer goods firms and public opinion polling for various clients.

Abstract of Presentation
The Moving Target: Emerging Trends in the Changing American Marketplace
Smart entrepreneurs know that even great products will fail without effective marketing. And the challenge of modern marketing lies in identifying consumer needs and motivations and in developing, promoting, and distributing goods and services that solve needs and fit seamlessly into the consumer's life.

This presentation summarizes key social and demographic indicators of change that is transforming the U.S. market into a myriad microsegments. Entrepreneurial success in serving consumer and business markets will be determined, to a large degree, by how well new and maturing businesses respond to these segments with well-designed micro-marketing strategies.

A sloka in Sanskrit for your success

YNM'TSYNO

The english translation is...

You Never Move 'Til You Stick Your Neck Out

ASEI 2003 21
Shashikant Joshi graduated from IIT Kharagpur in 1990 with a B.Tech. in Computer Science. He got his MS from Univ. of Minnesota in 1992. In '95 he started his database consulting company "Shift-F1, Inc.". All along he has had a literary side. From editing the college Hindi magazine 'Yavanika', writing a screenplay for a stage drama in Denver in '96, a book of Hindi poems in '96 and an audio CD of dramatized children's stories in 2002, finally ended him starting a publishing company - "Great India Publishers, Inc.". His latest project is a monthly, cultural, bilingual magazine named 'tarang - the wave' for the Indian community. Shashi also enjoys philosophy, Sanskrit literature, yoga, UNIX scripting and recreational maths.

Leap of Faith - pursuing the dreams

In this talk, Shashikant Joshi, a database consultant by profession, will talk about how he ended up in the publishing business. What led him to start Great India Publishers, Inc. instead of writing for 'The Database Weekly'. If you ever had a dream of which you were afraid people will not approve, you must listen to what Shashikant has to say - from tuning databases for Fortune 500 companies to publishing magazines, CDs, books! If you dream but never woke up to take actions, you will find this talk inspiring.

Ray Knight has over 40 years of experience in the engineering profession. Academically, he has a Bachelor of Science Degree in Electrical Engineering and a Master of Science Degree in Industrial Engineering, both from Cleveland State's Fenn College of Engineering, and Management of Managers certification from the University of Michigan School of Business. His career path includes 30 years in electric utility industry and 2 years with the Ohio Department of Education and the Ohio Board of Regents Math and Science Initiative. Ray has also been a part-time consultant to local architectural and engineering firms for more than 25 years including five years as a partner in the engineering consulting firm, Turner & Knight, Consultants. He is now in his tenth year with Ralph Tyler Companies, one of the largest minority owned architectural and engineering firms in Ohio, and currently serves as Executive Vice President of Infrastructure Engineering. Over a 12-year period, Ray served twice as president of the Cleveland Minority Engineering Forum (CMEF).

Abstract of Presentation

Take the sharp edge out of the Design/Construction Interface! Smooth transition from design to construction requires constructability reviews and, quality controls started early in the design process. The successful project finale is reliant on maintaining a strong presence during construction and a good relationship with the Construction Management. A coordinated effort from the Design firm and the Construction firm is essential.

Surajit Khanna, Ph. D., has more than 15 years of experience in quality management system and regulatory affairs. He has been working in pharmaceutical industry and dealing with FDA since 1989. He currently leads the Global Quality Assurance Division of Rockwell Automation, Mayfield Heights, Ohio. He was recently recognized as an associate/fellow of the Institute of Quality Assurance, UK. He is a senior member of American Society for Quality. Currently he is the First Vice-Chair of ASQ Cleveland section and the Chair for Regulatory Compliance Focus Group. He is also a registered IRCA Lead QMS Auditor. He has published several articles on quality management systems, and most recently he published a book "Managing Quality in GMP Environment."

Abstract of Presentation

Quality System in GMP (For Biotech, Pharmaceutical & Medical Device industries)

Quality is consistently producing what the customer wants while reducing errors before and after delivery to the customer. It is not so much an outcome as a never-ending process of continually improving the quality of what the company produces. The quality system should be an integrated effort — a total systems approach, to satisfy the particular safety and performance needs of a specific manufacturer, product, and user-market. An ideal quality system is composed of an organization that executes a quality program according to documented policy and specifications in order to achieve stated objectives.

Arun Kumar

Mr. Arun Kumar is a Ph.D. student at the Ocular Motility Laboratory in the Department of Biomedical Engineering at Case Western Reserve University. He obtained his B.E. in Electronics and Communication Engineering at the University of Madras, India (2000), and his M.S. in Biomedical Engineering from Case Western Reserve University, Cleveland, Ohio (2003). Mr. Kumar serves on the CWRU Graduate Student Senate and the executive committee of the CWRU Biomedical Engineering Graduate Student Association. He was the President of the IEEE Student Branch during his undergraduate study. He is also an active volunteer with Asha for Education, Cleveland chapter, an action group for basic education in India.

Abstract of Presentation

Biomedical Engineering: An interdisciplinary confection for better health care.

Biomedical Engineering has promoted the growth of the healthcare industry in a big way. Though the field is relatively young, having grown in the last 25 years or so, it draws experience and knowledge from a variety of fields such as electrical engineering, the basic sciences, and mechanical modeling. It is essentially technological know-how that is applied to the study of living tissues and organisms. It is evident that in the current atmosphere of "collaboration," an inter-disciplinary field such as biomedical engineering shows much promise for stimulating rapid progress of health care.
William D. Lewis is a Project Associate with E. I. DuPont at the Circleville, Ohio plant site and has over 34 years of plant site experience. He is responsible for electrical power and industrial control systems design, installation, and start-up. Before joining E. I. DuPont in 1986, he worked in the Equipment Modernization Group of Reliance Electric in Cleveland, Ohio. Mr. Lewis is a senior member of IEEE, Industry Application Society; and associate member of International Association of Electrical Inspectors. He was past Vice Chairman and past Chairman of the Columbus, Ohio IEEE Chapter of Industrial Application society.

Abstract of Presentation
Electrical Safety: "The Hazards Of Electricity"
Electricity has been a common energy power source for over 100 years, yet the hazards of electricity are still not fully understood by the users nor completely defined by the engineering community. This presentation will summarize the hazards of electricity and cover the history of electrical safety, plus introduce new standards for electrical safety.

Sanjeev Maddila has consulted in the supply chain area for over 15 years, most recently as a partner at Deloitte Consulting in Chicago, and earlier as an Associate Partner at Accenture. Prior to his management consulting career, he taught computer science at Northwestern University.

Sanjeev is a board member of the nonprofit organization CityYear-Chicago, supporting the literacy program in the Chicago's inner-city schools. He is also the founder and a current leader of IIT Midwest, the IIT alumni group in North America. Sanjeev has a Ph. D from the University of Illinois, Urbana-Champaign, MS from Johns-Hopkins, and B. Tech from Indian Institute of Technology, Kanpur.

Abstract of Presentation
Nurture Your Life-Networks
Not just at times of major career changes, you need to constantly feed your Life Networks to keep them updated. These networks come in many shapes and forms: alumni groups, professional affinity, past employers, community groups, volunteer organizations, boards, etc.

Jazz Mandair's education focused on the sciences, and specialized in Information Technology (IT). During his career Jazz managed multiple Solution groups, and worked with and for some of the largest global IT organizations before deciding not only to change his career but his way of life as well.

From a career in IT management, Jazz became a Personal Life Coach, Yoga Instructor and started a new career in Marketing. Jazz also committed a great deal of time, effort and expertise to community and civic organizations. After 2 years in the civic arena Jazz returned to IT to use his broadened background of working with people, processes and products to identify opportunities and generate tangible benefits for organizations looking for Document Imaging/Management solutions.

Abstract of Presentation
"Reincarnation" - is it a rebirth of your physical career or a rebirth of your consciousness within the same career? This powerful presentation uses business and professional best practices supported by real life experiences to explore the various aspects of creating a positive change in your career. If you are looking for tips, tools and techniques to restart your career or jumpstart your entrepreneurial venture this presentation is a must for you.

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Cohen International, LLC
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Cleveland, Ohio 44115
Ph: 216-774-1179 Cell: 216-577-2420
Fax 216-579-0111
E-mail: rreddy@cohenncpa.com
Website: www.cohenintl.com
Jacob Mathew, PhD is known internationally for founding of holisticonline.com, a website for health that now receives over 4 million hits/month from over 170 countries.

Dr. Mathew is a 1971 graduate of IIT (Indian Institute of Technology) Kharagpur. He obtained his advanced degree in Engineering from University of Pittsburgh and EMBA from Baldwin Wallace College. He had been the automation program Manager in TRW, Inc., Director of Engineering and Quality at Kovatch Castings, and President of Summit Manufacturing, Inc. before founding ICBS, Inc.

Abstract of Presentation
Surviving the Early Years in Business
More than half of all businesses that start up fail. More than 90% of all restaurants fail. The chance of failure is very high in the first few years of starting a business. Why is that some businesses survive and thrive whereas others fail to complete their anniversary? This talk is about success factors and hidden road mines on the way of the entrepreneurs.

Narsi L. Narasimhan
Narsi is a Co-Founder and the CEO of Paalam, Inc., an Atlanta based offshore outsourcing firm. Narsi serves on the advisory boards of Add2Home, Buildspan, Burton Training Group, SoftQuiz and Dilato. He used to serve as Director on the Boards of BOSS (Business Oriented Software Solutions, Inc.) and Proalgen Biotech Limited (formerly ACL Chemicals Ltd.) in Chennai, India.

He obtained his Ph.D. (Management Science) degree from the University of Texas at Dallas in 1988. His undergraduate degree in Mechanical Engineering is from the Indian Institute of Technology (IT-BHU), Varanas, India. Before becoming a consultant for major corporations such as MCI, Southwire, SynQuest and Edwards Baking Company, he served on the faculty of the School of Management, Georgia Tech for five years.

Abstract of Presentation
Entrepreneurship: What they do not teach you in your MBA
Entrepreneurship is more of an art than a science. More importantly, the environmental variables and constant shift in paradigms make it difficult to come up with any meaningful scientific approach to entrepreneurship, let alone a cookie cutter approach! However, this topic is too important not to study. Entrepreneurship propels our economy, our civilization, and our very humanity. The speaker has served on the advisory boards of more than dozen startups, especially during the dot-com period. He will present few observations first and then lead a discussion on few key concepts that affect entrepreneurs.

Raman S. Patel worked as Civil Engineer at Gujarat Refinery and Public Works Department, India from 1960-1970; Migrated to USA in 1971; he worked for Industrial Construction Company (General Contractors) from 1972-1988; He started East-West Construction Company as General Contractors in 1988; Mr. Patel has a Civil Engineering Degree from MS University of Baroda; he is also a registered Professional Engineer from State of Ohio since 1976.

Sreela Sasi is Assistant Professor in the Department of Computer and Information Science at Gannon University, Erie, PA. She has done Ph.D. in Computer Engineering from Wayne State University, Michigan, M.S. in Electrical Engineering from University of Idaho, Idaho, and B.Sc. (Engg.) in Electronics and Communication Engineering from University of Kerala, India.

Dr. Sasi's research interests include Intelligent System Design using Fuzzy Logic, Neural Networking and Wavelet Transforms; Digital Watermarking; Modeling of Electrophysiology Cardiac mapping; Graphics, and VLSI Design. She is a member of IEEE, Fellow IETE (L) - India, Member ISTE (L) - India.

Abstract of Presentation
Critical Role of Biometric Technologies in Homeland Security
Biometrics is defined broadly as the scientific discipline of observing and measuring relevant attributes of living individuals or populations to identify active properties or unique and permanent characteristics. It had been used for identification methods and for law enforcement applications for many years. But biometric technologies are now poised to rapidly permeate our daily lives. One of the reasons for this is the increasing need for secure and simplified passenger travel, restricted access, and border control. The National Strategy for homeland security aligns and focuses homeland security functions into six critical mission areas: intelligence and warning, border and transportation security, domestic counterterrorism, protecting critical infrastructure, defending against catastrophic terrorism, and emergency preparedness and response. Biometric technologies can play a critical role in meeting all these objectives.

Ravi D. Sharma is on the Board of ASEI and works for General Motors. He is well qualified and will provide us with a review of opportunities in fuel cells. He has a B.Sc. from Rajasthan University, MSc. from Bombay University, Ph.D. from University of Florida and Post Doctoral from Yale University. He has worked for major corporations in India and the USA and has a broad and diversified experience ranging from academics, government, industry, international and R&D. Dr. Sharma is the recipient of many honors and awards NASA and Bell Systems.
Paramjit Singh, President of Productive Group, Inc., got his B.Tech (Hons) from IIT in 1958 came to Cleveland in 1962, completed his MBA from Case Western Reserve University in 1965. Since 1981 he has been involved in providing marketing services to companies in the Great Lakes region. He is a member of Leadership Cleveland and on the Advisory Board of Cleveland Bridge Builders. Paramjit Singh is very active in the Indian community; he is the Board of Advisor of the National Federation of Indian-American Association and was recognized by the Ohio Civil Rights Commission for Community service.

Abstract of Presentation
Pro-active marketing with accountability is the key to your success! For this we need to examine:
- Where are you now?
- How did you get here?
- Where do you want to go?
- How are you going to get there?
- What is it going to take?

This is a critical and thought process you need to go through, whether you starting a new business or already in one.

Prasad Tadi completed his BS in Electrical and Electronics engineering from Andhra University and MS in Computer Science from IIT Kharagpur in 1985. He started Roshi Tech, Inc in 1996 and focused on providing consulting services in Software Configuration Management. He helped his customers in creating a Software Development Environment (SDE) and defining a Software Development Life Cycles (SDLC). He also helps them in defining and following SCM policies, which helps them to achieve ISO/CMM certifications.

Abstract of Presentation
In this paper / presentation the author /speaker shares his experience in the areas of Software Development Life Cycles (SDLC) and Software Configuration Management (SCM). He also covers how these same techniques can be extended to remote teams in deriving a better ROI to the organizations.

Raj Aggarwal’s business expertise includes finance and accounting, international business, e-commerce, and strategic analysis in the retail, industrial, and financial sectors. Prior to his current position as the Firestone Chair and Academic Director of the Finance PhD program at Kent State University, he was the Mellen Chair in Finance at John Carroll. Dr. Aggarwal is a member of the board at the Financial Executives Research Foundation, Manco Inc. (Duck, Lottie, and Lepage Brands), Flood Inc. (e.g., the CFW brand), and Hawken School; and in the past at Fifth Third Maxxus Mutual Funds, Alchem Inc., and Gooey.com Inc. Dr. Aggarwal has an undergraduate degree in Industrial Engineering, an operations management MBA, and a doctorate in Corporate Finance and International Business.

Abstract of Presentation
The Importance of a Good Board
A good board of directors can be critical in the success of a new venture. No entrepreneur is equally good in every area nor can a new venture afford full-time talent in every area. A balanced board with talents in the areas of finance, marketing, operations, and technology can be a great way to obtain high priced talent at relatively low cost. A well-respected board can also be critical as it can certify the viability of the business plan to skeptical outsiders (customers, suppliers, financiers, prospective manager). This presentation will provide some guidelines for setting up such a board.

Namrata Boveja has served on the ASEI National Board for 3 years as Secretary and Treasurer. She also founded the ASEI UMCP Chapter in 1997 and served as its President for two years. After completing her undergraduate studies in the field of Mechanical Engineering, she is now working towards the completion of her MBA in Finance and Marketing from UMCP. She is the Residential Hunter Sales Engineer for the Northeast Region with GE Industrial Systems where she focuses on increasing incremental business by working directly with homebuilders. Namrata is also a recent graduate of GE’s Technical Sales Leadership Program.

Abstract of Presentation
Win Win Scenario in Teams and New Product Marketing Process

Kathy Baker is a writer and speaker who specializes in delivering inspiring, uplifting and humorous messages, especially to those whose lives have been touched by difficulties. Kathy’s background includes 20+ years of experience in marketing, communications, public relations and management. Kathy is president of A Few Choice Words, a Kent, Ohio-based company that specializes in inspirational and motivational writings and presentations. She’s a columnist for two newspapers, the Record Courier and Focus.

Abstract of Presentation
Leaving Adversity Plaza: How to hail the taxi and leave difficulties in the rear view mirror of your life.

You cannot choose what happens to you sometimes, but YOU can choose your attitudes. Using some stories from her latest
Ron Finklestein is a Certified Knowledge Manager and business-technology consultant with experience spanning two decades. Ron is skilled in all aspects of information technology. He excels at helping businesses understand their internal processes and utilize knowledge management tools and techniques to find solutions to critical issues. Since 2001 he has devoted his full time to consulting, and is the founder and Managing Partner of AKRIS, LLC, a full service business and technology-consulting firm. AKRIS helps middle market companies solve business problems through the focused use of technology solutions. Ron founded and currently serves as Regional Director/Chairman of the Advisory Board of the NEOSA Business & Technology Group at Canal Place.

**Abstract of Presentation**

*The Science Of Getting Rich*

There is a science to getting rich. It is an exact science, like algebra or arithmetic. There are certain laws that govern the process of acquiring riches. Once a person learns and obeys these laws, he will get rich with mathematical certainty. Ron will discuss this law in his presentation.

Shikha Gambhir is a graduate of the University of Maryland College Park Computer Science Program. She currently is working at British Aerospace Electronics as a Software Engineer primarily working on a navy supply monitoring web system. Also, she is pursuing her masters degree in computer science at John Hopkins University. Ms. Gambhir has been affiliated with ASEI since its inception and College Park. She is currently the Secretary for the national chapter and the web master.

**Abstract of Presentation**

*Full Cycle Software Development Cycle*

The full cycle development process which encompasses project scope and initial analysis, detailed design, requirements specifications, development, testing methodologies, and maintenance will be discussed. Challenges and mistakes made by many software companies in the industry will be explored as well.

Snimar Hansra

**Session Co-Chair: Opportunities: Biotech/Biomed Engineering**

Presently working on her MBA at Case Western Reserve University, majoring in Marketing and Supply Chain Management. She is the Co-Founder and President of “Diversity Inc.” and receipient of A.T. Kearney Case Competition Award. She is an active member of “ASHA-education for children”.

Prof. Chittaranjan Jain

**Session Chair: Entrepreneurship: Making it Work and Opportunities: Information Technology & Engineering**

Graduated from IIT Kharagpur in 1964 in Mechanical engineering and then worked for almost 2 years in Hindustan Motors near Calcutta. Obtained MS and PhD in Industrial Engineering from The University of Michigan, Ann Arbor in 1970. Joined the faculty of Industrial Engineering at Cleveland State University in 1970 as assistant professor. Over the past 33 years, he has served the University in a variety of academic and administrative capacities. He also has extensive industrial consulting experience in manufacturing productivity and Quality areas. Currently, he is a Professor of Industrial and Manufacturing Engineering as well as the University Ombudsperson.

Gayathri Krishnamoorthy is a Ph. D. student in the Cardiac Bioelectricity Research and Training Center in the Biomedical Engineering Department of Case Western Reserve University. She has an undergraduate degree in Electronics Engineering from the University of Bombay (1995) and a Masters degree in Biomedical Engineering from Texas A&M University (1999). Her Ph. D. research focuses on understanding the structure-function relationship of a potassium ion channel that is active in numerous physiological processes including arterial tone regulation and neurotransmitter release at the neuromuscular junction.

**Abstract of Presentation**

*Biomedical Engineering in Ion Channel Research: Unraveling Mysteries, Developing Cures*

The talk will examine the current technology and methods used in the study of ion channels. Techniques such as electrophysiology, Markov and mathematical modeling when applied at the cellular and molecular level, will provide valuable insights that can be used to develop new remedies. This can lead to developing new drugs.

Amandeep Lamba is a junior computer science and quality management major at the University of Maryland, College Park. He is working as an e-business/IT specialist in Technical Sales at Global eXchange Services in Gaithersburg, MD. His past experiences include working with Verizon Wireless, CNSI (Client Network Services Inc.) and University of Maryland. He is an active member of the Himan CEO's program - a select program for student entrepreneurs. Amandeep is a certified Green-belt in Six Sigma.

He is the president of the ASEI chapter at the University of Maryland and is the founder and the charter president of Rotaract Club of College Park at UMD. He is the founder and CEO of MedChart, LLC - a business outsourcing company.

**Abstract of Presentation**

21 things for being successful, rich, and happy; Jump starting entrepreneurship
Abraham Pannikkottu
Session Chair: Opportunities: Advanced Materials
Manager, Engineering Group Akron Rubber Development Laboratory, Akron, Ohio. Abraham is the manager of ARDL Engineering Group, which is the engineering wing of Akron Rubber Development Laboratory, Inc. Abraham received a B.S. in Engineering from the University of South Gujarat, India, and M.S. degrees in Physics and in Polymer Science from the University of Akron. He has experience as an engineer with a custom mixer and leading manufacturer of reclaimed rubber and automotive rubber compound. Abraham's special capabilities include compression stress-relaxation of polymers, thermal and dynamic mechanical analysis, conductive polymer applications, automotive rubber components, and medical applications for rubber and plastics. He is a member of ASTM, SAE, and American Aerospace Engineering Society.

Satish Parikh
Session Chair: Engineering Design/Construction Forum
Satish Parikh is the principal electrical engineer with the Washington Group with 28 years of experience in project management, quality control, safety programs, energy audit, and design development. He is a registered professional engineer in Pennsylvania. He is very active in the community and volunteers his time for Red Cross, Gujarati Samaj and the Federation of India Community Associations.

Kiran C. Patel, P.E.
Kiran C. Patel got his B.S.C.E. from Carleton University in 1981 and his M.B.A from University of Virginia in 1989. Kiran has over eighteen (18) years experience in structural and civil engineering and management of residential, municipal, and industrial projects. At G & T ASSOCIATES INC., Kiran is responsible for the design, analysis, field survey and/or construction inspection of various projects. Prior to joining G & T in 1986, Kiran was with BECHTEL POWER CORPORATION. Before joining Bechtel, he performed seasonal projects for THE MINISTRY OF TRANSPORTATION AND COMMUNICATIONS (CANADA) in their Research & Development and Quality Control program.

To Believe what has not occurred in history will not occur at all, is to argue disbelief in the dignity of man.

Mahatma Gandhi

Dr. Pradeep Rohatgi
Pradeep Rohatgi received his Bachelor's Degree from Banaras University, and his Masters and Doctorate degrees from the Massachusetts Institute of Technology. Currently, he serves as a Wisconsin Distinguished Professor and Founder Director of the UWM Center for Composites and the Laboratories for Solidification and Tribology. He has worked at Research Laboratories of Bethlehem Steel and International Nickel Companies and has been a professor at the Indian Institute of Technology, Kanpur, and the Indian Institute of Science, Bangalore in the Departments of Metallurgy, Mechanical Engineering and Management.

Abstract of Presentation
The possibilities of extending solidification processing techniques for the synthesis of other advanced materials including functionally gradient materials, nanocomposites, superconducting composites, solar photovoltaic components, and porous and foam materials will be explored.

Dr. Louis Rumao
Dr. Louis Rumao obtained his B.Sc. degree in Chemistry and Physics from Bombay University, and his Ph.D. in Polymer Science from University of Detroit. He worked for Ford Motor Company, as a Materials Specialist, for 31 years. Since his retirement last year, he has been doing some consulting work in the area of cost reduction for lower-tier automotive suppliers.

Abstract of Presentation
Materials Engineering: Challenges and Opportunities in the Current Business Environment
Materials are necessary for every part and component that is manufactured. The total cost for any part consists of materials, design, labor and overhead, with materials contributing anywhere from 30% to 70%. Therefore, selecting the right materials and manufacturing process have significant impact on the cost and durability of the part.
In today's business environment of relentless global competition, cost reduction demands and higher customer expectations, Materials Engineering can be a significant contributor to a manufacturing company's success.

Dr. Erol Sancaklar, University of Akron
Dr. Erol Sancaklar received his Ph.D. (Engineering Mechanics) and M.S. (Mechanical Engineering) degrees from the Virginia Polytechnic Institute and State University. He is a Fellow of ASME, and Chair of ASME National Technical Committee on Reliability Stress Analysis, and Failure Prevention (since 1997). He has served as the Associate Editor for the ASME Journal of Mechanical Design (1995-1998, 2003-present), and has been in the Editorial Board of Journal of Adhesion Science and Technology since 1993. He was a faculty member at the Mechanical and Aeronautical Engineering Department at Clarkson University during 1978 to 1996 before joining the University of Akron in 1996 as Professor of Polymer Engineering.

Abstract of Presentation
Some Polymer Applications for Excimer Lasers
Ed Terrill received his BS in Chemistry from Ursinus College and his Ph.D. in Polymer Science from The University of Akron. His professional experience includes 21 years with The Goodyear Tire & Rubber Company in the Polyester, Tire Physics, and Compound Science Departments and E I DuPont deNemours & Co Textile Fibers Pioneering Research Laboratory. He has 3 patents, 2 trade secrets, and 6 publications in polymer science.

Suresh V. Venna is a doctoral student in the department of mechanical engineering at the University of Akron, Akron, Ohio. He obtained his Bachelors degree Sri Venkateswara University, Tirupati, India and Masters degree from the University of Akron. His expertise is in the areas of solid modeling, finite element analysis, smart structures and nanoscale metrology.

Mr. Venna's primary research involves development of self-actuating aircraft wing structures for in-flight deicing, passive vibration control of composite structures using piezoelectric transducers and viscoelastic materials, and development of six degree of freedom measurement system at nanometer scale.

Abstract of Presentation

Development Of Self-Actuating In-Flight Deicing Structures

Ice accretions on the surface of an aircraft wing is a major concern in the aircraft industry. Deicing is done both on ground as well as in flight. Current in-flight deicing methods such as thermal and electrical deicing methods require very large amount of power. Pneumatic impulse deicing methods require a rubber like boot to be mounted on the wing surface, which may be objectionable. There is a need to develop a deicing technique, which will not affect the wing geometry or surface and require less power. In this presentation a mechanical deicing technique, which requires minimum amount of power will be discussed.

Anthony Yen is well known figure in the Cleveland community both in the business and civic arena. He is on the Board of Urban League of Greater Cleveland and many other organizations. Organizer of Teacher’s Day. He has excelled in international business. He is a speaker and lecturer. Tony has received innumerable awards including International Business Executive of the year. He has arranged many trade missions to the Orient and received the “E” award for excellence in exporting and the Lifetime Achievement Award from the World Trade Centers. Tony was the first member of an ethnic minority to be appointed by the Secretary of Commerce to the District Export Council.

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ASEI-Kalpana Chawla Scholarship is instituted in memory of the highly accomplished NASA astronaut, Kalpana Chawla, who was one of the 7 distinguished astronauts in the Columbia Shuttle Flight STS-107, and in recognition of her contribution in the field of aerospace engineering for the benefit of mankind.

WINNER:
Amit Kumar, Case Western Reserve University, Cleveland, Ohio
To me this scholarship is encouragement to educate myself (and others) further, with enthusiasm and determination.

RUNNER-UP:
Kari Lynn Kapadia Risher, The University of Michigan, Ann Arbor, MI
I am honored to receive the Kalpana Chawla runner-up scholarship this year. I would like to use this scholarship to finish my work in the Space Systems engineering masters program, and eventually would like to go on for a PhD in an aerospace-related discipline, possibly geosciences and remote sensing. It is wonderful to have this support to help me accomplish my career aspirations.

ASEI GENERAL SCHOLARSHIP WINNERS:

Jayesh Thawani, The University of Michigan, Ann Arbor, Michigan
I would like to thank the ASEI and its sponsors for this award. It means a great deal to my family and myself because we regard the organization highly. Innovations are made in the field of Engineering via knowledge, dedication, creativity, and most important, unity. Our common heritage enables us to utilize the great amount of resources we all have to offer. The ASEI helps unite us, and in doing so, aids greatly in the advancement of Engineering and the development of technology.

Amandeep Lamba, University of Maryland, College Park, Maryland
Being nominated for this scholarship will help me to pay the high tuition fees for the upcoming semesters. Once I graduate and find a job, I will be fortunate to have the opportunity to help the ASEI, in providing more scholarships to international students by setting up grants through various means.

Asha Nandini Radhamohan, The University of Michigan, Ann Arbor, Michigan
I am very thankful for having been chosen to receive this scholarship from ASEI, one of the few organizations that honor both my Indian heritage and career goals. The money will aid me in my college studies and research, which will be centered upon developing new methods for helping others through biomedical engineering.

Ankit Maini, University of Maryland, College Park, Maryland
I am gratified to receive this scholarship as it comes from that part of a heritage I am very proud of. Scholarship means more than just money - it is an encouragement and recognition of all the hard work that I have put into school and work. With this scholarship, I will continue to pursue my undergraduate degree, one which I hope will culminate in the continuation of what ASEI represents.

Puja Singhal, The University of Maryland, College Park, Maryland
I will apply the ASEI scholarship towards achieving both my academic and career goals.
ASEI 20th ANNUAL NATIONAL CONVENTION
STUDENT SCHOLARSHIP WINNERS

Dipesh Gupta, University of Maryland, College Park, Maryland

I believe in the empowerment of under-represented minorities in the field of engineering, and strongly support the goals of ASEI. Through organizations such as ASEI, aspiring can network with professionals and academicians who are motivated by similar interests. I am glad and thankful to ASEI in choosing me as an award recipient. It gives me a great sense of pride and achievement, and something I can write back home about.

Ranjani Radhamohan, The University of Michigan, Ann Arbor, Michigan

My first year at Michigan was an exciting one, and a fantastic time in my life. Last year’s ASEI award helped a great deal with the cost of books, labs, and supplies. I am gratified to accept a scholarship award this year. With its aid, I look forward to a second year of college that will be even more fulfilling and enjoyable than the last. I am especially proud to have been recognized by ASEI, an organization I hold in very high regard.

Yogeeta R. Purohit, University of Maryland, College Park, Maryland

It is a great honor to be a recipient of the ASEI awards for second time. I am currently pursuing Bachelors degree in Computer Engineering and further plan to attain my Masters in the same area. This scholarship will help me achieve my career goals academically and financially. Thanks to ASEI for their continuing support in motivating and shaping the careers of Indian youth community.

Pavan Kumar Mutnuri, University of Cincinnati, Cincinnati, Ohio

I wish to express my sincere gratitude for selecting me for this ASEI scholarship. This scholarship means much more to me than receiving a cash-award. From a graduate student’s perspective, the greatest satisfaction comes when the numerous hours of hard work spent in research is recognized, and appreciated. The scholarship gives me a new motivation to excel in my work in future.

Mitul Rajendra Dadhania, University of Cincinnati, Cincinnati, Ohio

This scholarship not only provides financial assistance for my family and I, but also brings me closer to the ASEI organization and the Indian community. I am thankful to be recognized for my achievements by this organization. It is my great pleasure to know that these funds will help me obtain a college education, in engineering so I can become a future contributor to ASEI.

Shirdish Poondru, University of Cincinnati, Cincinnati, Ohio

Receiving the ASEI scholarship is an extreme honor for me and it fills me with pride. This award reminds and encourages me to continue my hard work to become a successful professional. I am very thankful to ASEI and Professor Kirti N. Ghia for gracing me with such an opportunity. I would also like to thank my family for making me the person that I am.

Suresh Venkat Venka, The University of Akron, Akron, Ohio

I thank the ASEI awards committee for selecting me for the scholarship. This scholarship not only helps me financially but also means a lot more to me. The motivation and encouragement I received is immense. I will work even more hard to achieve more success and serve the engineering community.
As a Man Thinketh
by James Allen

Man is made or unmade by himself;
In the armory of thought
He forges the weapons,
By which he destroys himself:

He also fashions the tools with which
He builds for himself heavenly mansions
Of joy and strength and peace.

By the right choice and true application of thought,
Man ascends to Divine Perfection;
By the abuse and wrong application of thought
He descends below the level of beast.

Between these two extremes
Are the grades of character,
And man is their maker and master.
Welcome to Ohio
the state that gave the world
the light bulb and the traffic light.
One to show us the way.
The other to exercise control.

ASEI of Ohio
Jag Kottha • Paramjit Singh • Jacob Mathew • Satish Parikh • Rajiv Chokshi • Chetan Amin
Surajit Khanna • Ratanjit Singh Sondhe • Mohan Reddy • Rama S. R. Gorla • P. Narender Reddy
Raj Chaudhry • Hira Fotedar • Kirti Ghia • Chittaranjan Jain • Simon Ostrach
David Yen • Gerald Seidel • Pat Crago

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Phone 216-321-8729 Fax 216-991-7382
American Society of Engineers of Indian Origin
Welcomes You to
The 20th Annual ASEI National Convention

Entrepreneurship for a Waking Giant...
Indians in the USA

Cleveland, OH
August 30 - September 1, 2003
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Henry Ford once said that it is he who stops learning, whether at 20 or 80, that is truly old. It’s no wonder that education has been a top priority at Ford since the Company’s earliest days. In fact, throughout our history it has been at the top of our list for charitable giving.

For those who share our passion for fostering excellence in education, we salute you.

Ford Motor Company
Welcome From the City of Cleveland

It is with great pleasure that the City of Cleveland welcomes the American Society of Engineers of Indian Origin.

During your stay, take the time to explore the wealth of opportunity and excitement that this city has to offer engineers of any background. With the resources of our nationally recognized community institutions such as The Cleveland Clinic, University Hospitals, Case Western Reserve University and the NASA Glenn Research Center, Cleveland is positioned to be at the forefront of new technological advances for years to come.

Public-private partnerships focused on areas ranging from biotechnology to fuel-cell research ensure that new ideas receive the support necessary to propel ideas into innovation. Cleveland partnerships like these have recently secured $20 million for stem cell research and $17 million for fuel-cell research.

Cleveland wants to shape the future, and it will do so with a diverse community continually transforming a myriad of ideas into action. With more than 117 different cultures and communities, Cleveland is an exciting place to live and work.

Thank you for visiting our city, and we hope you find your convention as stimulating as the possibilities and ideas alive within Cleveland.

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American Society of Engineers of Indian Origin

Membership Benefits Guide

Networking
ASEI offers a unique opportunity to you to make contacts and network with fellow professionals who share your interests. Networking leads to mutually beneficial opportunities and relationships.

Convention
Each year ASEI holds a nationwide annual convention. Conventions and workshops are also held locally by each chapter. Recognition is provided to outstanding people through awards.

Local Chapter Meetings
Local chapters provide members the opportunity to meet each other, network, communicate/generate new ideas, attend career development seminars, build beneficial relationships and learn from each other. Chapter meetings are geared towards the needs of the members. Periodically, plant tours, mini-conventions and development workshops are conducted. Monthly programs emphasize business/consulting topics, career development topics or immigration/interviewing/resume topics, depending on the chapter membership interests.

Committees
Committees are charged with the responsibility to accomplish specific ASEI goals which are common to all chapters. Committees can also be looked upon as the R & D arm of the chapters. Committees develop programs or workshops that can be used at the chapter level or at annual conventions. Members are encouraged to actively serve on committees.

Career Enhancement
ASEI assists each member by career planning and enhancement assistance. Two key programs are customized workshops (at local chapter meetings and at the annual convention) and mentoring programs to personally discuss career issues.

Membership Directory
The ASEI directory can help you find fellow members. Information is also available on company affiliations and expertise. The directory is updated annually. ASEI sends a free directory to all members.

Employment Directory
Referral assistance is provided to members looking for work. Employers are encouraged to recruit ASEI members through job fairs and to meet their minority hiring goals.

Publications
ASEI plans to make available publications on relevant subjects such as career development, tech transfer and immigration to its members. These publications will be developed by ASEI committees.

Corporate Membership
Corporate membership is open to companies actively engaged in engineering, architecture and related arts and sciences. Benefits include up to $150 credit toward your first display ad in the monthly newsletter, exclusive access to a no-fee professional employment placement service, a $100 credit toward your first display ad in the annual convention brochure, discounted rates for exhibit space at annual and local conventions, and a Corporate Member listing in the membership directory.

Technology Transfer
ASEI assists Indian and U.S. companies by bringing together technology experts in the desired industry. Lists of experts, businesses and technical articles are maintained. Technology liaison is maintained with Indian organizations and with other associations in the U.S.

Trade Assistance
ASEI plans to acquire and catalog trade laws and policies. Facilitation assistance is provided to trade delegations from Indian or to U.S. companies.

Business and Consulting
This committee assists business and consulting firms in areas of mutual interest.

Student Affairs
ASEI assists students by providing scholarships, opportunities for contact with businesses (job search), in immigration matters (workshops) and other beneficial services such as resume writing, career planning and individual guidance and mentoring.

Newsletters
The newsletter is sent to all members and is intended to be informative and educational. It communicates key events and news.

Scholarships and Awards
Student scholarships are awarded based on merit and need. ASEI recognizes outstanding individuals for their professional and entrepreneurial contributions.
OUR VISION

ASEI TO BE:
A nationwide network of engineers of Indian origin
A forum to assist members in advancing their careers
A facilitator of technology transfer between the U.S.A. and India
A national professional organization with the goal of "service to its members"

ASEI ACTIVITIES

CAREER ENHANCEMENTS
Provide career guidance and counseling
Facilitate networking
Assist in skill development through continuing education courses and technical seminars
Encourage PE registrations

STUDENT AFFAIRS
Providing guidance to students
Establish Merit Scholarships
Assist in practical training and job placement

ORGANIZATIONAL MATTERS
Establish a national office
Establish an editorial board and publish quality newsletter
Increase membership
Publish membership directory
Increase awareness of ASEI
Facilitate local chapter meetings

TECHNOLOGY TRANSFER
Conduct workshops on how to transfer technology to India
Assist in development of rural India
Provide communication channels for retired engineers
Disseminate opportunities in India for NRIs (non-resident Indians)

LIAISON WITH INDIA
Establish working relationship with government and private organizations in India

CONVENTIONS AND AFFILIATIONS
Conduct conventions throughout the U.S.A.
Cooperate with other professional societies with similar goals

LOCAL CHAPTER ACTIVITIES
Conduct bimonthly meetings to promote discussion/participation on current events
Communicate with ASEI National Office and other Local Chapters
extend my sincere and hearty welcome to all of you on this auspicious day to celebrate the 20th ASEI National Convention on Aug. 31, 2003. This is a great occasion to reflect on our past experiences and accomplishments of this organization. As a professional organization, we have grown into a very mature and dynamic organization in promoting our missions throughout United States, and recently we have been successful in extending our horizon beyond our national boundary. On the eve of the 21ST century, we have become truly a global organization with the opening of our sister chapter in Delhi, India, in 2000. This is definitely a great accomplishment on the part of this organization, and we all should be proud of these exceptional achievements. We are constantly working to expand our horizons and in recent months we have focused on initiatives that will put us in very strong footing to achieve our goals and realize our vision.

For this I must thank all the dedicated office bearers and the national convention committee and local chapters for their absolute dedication and uncompromising sacrifice.

As you know, this is our 20th convention, and we should be proud of the fact that we have come a long way (20 years to be exact) to be where we are today. Each and every ASEI member deserves a big pat on his or her back for standing up against all odds and all challenges over these years for not only keeping alive the guiding light of this organization but taking it to a new millennium with greater enthusiasm and vigor. As a fitting challenge to our mission in the new millennium, the theme of this convention is set as “Entrepreneurship for a Waking Giant — Indians in USA.” With the dawn of this New Millennium, the bond between technology and entrepreneurship has become stronger than ever. In order to highlight the complex interrelationship between these two areas, we have invited subject matter experts to enlighten us with their wisdom and knowledge on this very relationship. I hope we all will learn a lot from the Technical seminars during the day and from the keynote speech in the evening. The wisdom of these entrepreneurs and technocrats will guide us to set our future direction and provide the strength to take the oath for greater achievements for all ASEI members in the new millennium. I request you all to pledge your support to your organization, ASEI, to make this oath a challenge and a must success.

I would like to end this note with a salute to a great entrepreneur engineer and a scientist who dedicated her life for the benefit of mankind and brought great pride, dignity and inspiration to all Indians and persons of Indian origin, The Great Astronaut — Kalpana Chawla. ASEI salutes you, on this 20th convention, for your great sacrifice for space exploration and mankind by instituting a distinguished scholarship in your name for the future generation to carry out your vision.

With best wishes and cheers for a prosperous new millennium from the bottom of my heart to all of you.

R. K Rout
Chairman
ASEI National Board
ASEI—WHY?

Selecting a title for a message is quite a deliberate and painstaking task that all of us face many times. We arrived at this title because this question is posed many times by prospective members. To answer the question posed in the title of this article, Dr. Chandrika Prasad, a senior advisor to ASEI, scanned through some 50 editorial and presidential messages of several engineering journals. It was no surprise to note that this is not unique for ASEI but is common to many other engineering associations. Among all the messages, the one that caught our attention is from William C. Zegel, President of Air and Waste Management Association. “As we think of associations, the image of a flock of flying birds comes to mind. A flock flies in a ‘Y’ formation when they are going any significant distance. Scientists tell us that this formation reduces the drag for the individual bird and the whole flock adds about 70 percent more to its flying range than would be possible if each bird flew on its own.”

As the theme of this convention indicates, engineers are the intellectual capital—the knowledge that runs the world. The quality of life and economic vitality of the world depends significantly on advances in science/engineering and applications of technology. Today, the technology is changing at a pace that takes one’s breath away. In order to preserve and increase this capital, one needs to learn continuously, upgrade skills and adapt to new situations. It is no longer sufficient to go to work, do your job and go home. In a time of these drastic changes, it is the learners who will inherit the future and find themselves equipped to live in a world of future. These professional demands come at a time of upheaval in the employment in the landscape. Global competition has sparked a wave of downsizing in technology firms and destroying much of the job security that engineers used to take for granted.

The ASEI is a flock of engineers of Indian origin that share a common direction and sense of Indian community, and can get where they are going more quickly and easily because they will be flying on the thrust of each other. As the old adage goes, “Birds of a feather flock together.” The key to the formation is networking. Engineering professionals of Indian origin have contributed significantly toward our modern world, yet most people do not know much about them. And here lies the lack of flying in the “Y” formation. It is incumbent on these professionals to think of where they have been and where they are headed. In addition to educating ourselves, we must also educate the public and the lawmakers about ASEI. Participation in ASEI is an investment in time and money that yields great returns. Benefits to the members are numerous; you can assign your own dollar values to these benefits. The equation works. The greater your level of participation, the greater your level of return. So start the process of involvement now. Adapting President Kennedy’s quote for ASEI, “Ask not what ASEI can do for you. Ask what you can do for ASEI.”

As we celebrate the 20th anniversary of ASEI with our annual convention in Cleveland, Ohio, let us all acknowledge and salute the founders and founding members of ASEI, who were energized at a Christmas party in Jagdish Agrawal’s house in Detroit, Mich., after a doctor friend announced the formation of the American Association of Physicians from India (AAPI). Dr. Navin Pandya wrote the constitution and bylaws for ASEI, which was signed by the following 26 founding members. The kickoff was held on Sept. 9, 1983, and attracted 300 people.
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A Message From The Convention Chairman

JAGANNADHAM KOTTHA

Welcome and thank you to all who played a role in bringing the 20th Annual ASEI Convention to Cleveland, Ohio. Currently, the Governor of Ohio has initiated the Third Frontier Program to revitalize its economy to prepare for meeting the challenges of this millennium.

Engineers, scientists, academicians, IT professionals and entrepreneurs of Indian origin have been contributing to our adopted country and India for the past several decades. It is with this spirit we chose the theme of this convention, “Entrepreneurship for a Waking Giant ... Indians in the USA.”

The planning process for this convention led the Ohio Chapter of ASEI to formulate these four initiatives:

1. Emphasize the importance of entrepreneurial thinking for our community's future and us.

2. Communicate with the various agencies involved in revitalizing the Ohio economy that ASEI and its members are available to play a proactive role in this endeavor. Communicate this message through the print media to the Ohio business community.

3. Introduce the Kalpana Chawla scholarship for aspiring aerospace engineers.

4. Introduce a scholarship program for high school students of Indian origin who participated as Intel ISEF finalists from India and the United States, in the annual International Science and Engineering Fair held in the U.S.

My vision for the future of ASEI is that we do whatever it takes to make our organization strong and visible throughout the United States and India. This can only happen if we adapt President Kennedy’s famous expression ... Ask not what ASEI can do for you, ask what you can do for ASEI.

While in Cleveland, which has been named the All-American City, please take time to see the Flats and see the bridges (beats of engineering) across the Cuyahoga River, Lake Erie, Rock and Roll Hall of Fame and Museum and the Cleveland Museum of Art’s exhibition on the Chola Bronze Collections from India.

Finally, I want to take this opportunity to thank my committee, advisors and all the sponsors and supporters of this convention.

Best regards,

Jagannadham (Jag) Kottha
Convention Chair and President ASEI
IN RECOGNITION OF
THE AMERICAN SOCIETY OF
ENGINEERS OF INDIAN ORIGIN
OHIO CHAPTER
HOSTING ITS
20TH ANNUAL CONVENTION

I am pleased and honored to welcome the members of The American Society of Engineers of Indian Origin, Ohio Chapter, as you host your 20th Annual Convention at the Cleveland Hilton South. The theme for this year’s convention is “Entrepreneurship for a Waking Giant ... Indians in the USA” with the Ohio Chapter of ASEI featuring “How to Revitalize Ohio’s Economy.”

ASEI is an international non-profit professional organization of engineers, students and professionals pursuing the “enhancement of technical, professional, educational, and economic benefits to its members, paving the way for global networking and exchanging knowledge with other countries.”

I would like to recognize ASEI National Chairman, Rabindra Rout; Convener, Jag Kotha; Co-Convener Parmjit Singh, and all of those who helped to make this event possible. I extend my best wishes for an enjoyable evening and continued success in the future.

Sincerely,

George V. Voinovich
United States Senator
FROM THE OFFICE OF
GOVERNOR BOB TAFT
AUGUST 31, 2003

I am pleased to extend my warmest greetings to all of those in attendance for the 20th Annual Convention of the American Society of Engineers of Indian Origin on August 31, 2003 being held at the Cleveland Hilton South.

The American Society of Engineers of Indian Origin works hard to develop a nationwide network of engineers of Indian origin, provide a forum to assist members in advancing their careers and facilitates technology transfers between the United States and India. These services assist in ensuring those of Indian origin will receive equal treatment and opportunities. This society should be commended for their hard work and dedication towards bettering this great state and our nation.

On behalf of all Ohioans, best wishes for a wonderful event and future success!

Sincerely,

Bob Taft
Governor
PROCLAMATION
City of Cleveland
Jane L. Campbell, Mayor

IN RECOGNITION OF
THE AMERICAN SOCIETY OF
ENGINEERS OF INDIAN ORIGIN

WHEREAS, on behalf of the citizens of the City of Cleveland, I am honored to offer this Proclamation in recognition of the American Society of Engineers of Indian Origin; and

WHEREAS, the Ohio Chapter of the American Society of Engineers of Indian Origin will present their 20th Annual Convention on Sunday, August 31, 2003; and

WHEREAS, the American Society of Engineers of Indian Origin would like to develop a nationwide network of engineers of Indian origin, provide a forum to assist members in advancing their careers and facilitate technology transfer between the United States and India; and

WHEREAS, the theme of this year's convention is "Entrepreneurship for a Waking Giant...Indians in the USA," which will feature information on "How to Revitalize Ohio's Economy."

NOW, THEREFORE, I, Jane L. Campbell, the 55th Mayor of the City of Cleveland, do hereby offer this Proclamation in recognition of the American Society of Engineers of Indian Origin. I encourage all citizens to join me in extending them best wishes for continued success.

IN WITNESS WHEREOF, I have set my hand and caused the Corporate Seal of the City of Cleveland to be affixed on this 31st day of August in the year 2003.

Jane L. Campbell, Mayor
extend my heartiest greetings to the office bearers and members of the American Society of Engineers of Indian Origin on its 20th Annual Convention in Cleveland on 31st August, 2003.

We are all proud of your achievements on the technological and engineering front. Through dedicated and innovative work, your esteemed members have helped in establishing the credence of Indian scientific and technological talent force in the U.S.A. and I am sure, are in the forefront of furthering technological cooperation between India and the U.S.A. I look forward to continuing efforts to facilitate technology transfer to India and increase two-way interaction in the field of technology.

I wish the Convention all success.

Bhishma K. Agnihotri

415 Madison Ave.
New York, NY 10017
Tel: (212) 478-7770
Fax: (212) 478-7779
E-mail: AmbAgnihotri@aol.com
The World Trade Center Cleveland is pleased to welcome the national conference of the American Society of Engineers of Indian Origin (ASEI). You will find Clevelanders ready to convey the extraordinary attributes of our community as a great place to live, work, study and research.

CLEVELAND OFFERS THREE DISTINCT ADVANTAGES:

Receptivity: You will find Cleveland to be receptive to you, your family and your interests. The region possesses an exceptionally diverse population, with nearly 100 ethnic groups present in our city.

Internationally Minded: Cleveland is not new to international business or international people. As a longtime manufacturing center, Cleveland companies contribute significantly to Ohio’s ranking as the sixth largest exporting state in the U.S. Our region also purchases US$32 billion of foreign-made goods annually. Because of our market size, and our exceptional location in the heart of one of the largest markets in North America for industrial products, 270 foreign-owned companies (employing 60,000 people) have established a presence in metro Cleveland for their North American operations.

Strategic Location: Of all the metropolitan areas in North America, which has the largest population within a 250-mile radius? Cleveland! Not only are we in the heart of 57 million people, we are within one day’s drive of almost half of all U.S. manufacturing and the headquarters of Fortune 500 companies. Our transportation infrastructure and strategic location are why there are more express consignment operator distribution facilities (UPS, FedEx, DHL, etc.) in the Cleveland Customs District than any other District in the United States.

Consider the World Trade Center Cleveland as your connection to Northeast Ohio’s business community. We welcome your visit to Cleveland, and look forward to answering any inquiries you might have about your opportunities in Northeast Ohio.

For more information about the World Trade Center Cleveland, call (216) 592-2447 or e-mail: wttc@wtccleveland.org. Web site: wtccleveland.org

Sincerely,

David Yen
Executive Director
LEADERSHIP

is

An earned privilege.
Never assigned.
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POLY-CARB, Inc. was founded in 1973 with a mission to serve society by providing high-quality, environmentally safe solutions to infrastructure erosion problems. POLY-CARB’s mission is achieved through the manufacturing of premium quality systems and materials that result in unparalleled value, performance and service.

POLY-CARB, Inc. has become a leader in its industry because it has created an environment that is dedicated to providing effective long-lasting solutions through the production of the highest quality products. The company’s unique modern-thinking managerial and entrepreneurial philosophy empowers each employee with the responsibility to act with complete freedom and authority in order to create and provide the highest value at all times.

POLY-CARB, Inc. has developed a market niche by providing unique products and systems in the following industries:

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- Parking Structures Restoration & Waterproofing
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Cleveland, Ohio • Roberts, Georgia • 866.POLY-CARB – POLY-CARB.com
Automotive Industry and SAE Presents

Two Great Opportunities to Help India

S.M. Shahed
Past President, ASEI (1989)
Past President, SAE International (2002)

Mobility is a key determinant of economic growth. Studies published by the World Business Council for Sustainable Development show a clear correlation between distance traveled (km/person/day) and income ($/person/yr). It can readily be argued that this is a self-reinforcing cycle: The ability to travel makes higher income possible and higher income encourages more mobility. Thus, the development of mobility technology, industry and infrastructure in India is a key to its development.

I am a life member of ASEI and had the honor of serving as ASEI president in 1989. I recall agonizing discussions among colleagues and board members on how to most effectively help India, much of the discussion not leading to any specific, effective programs. During the last year, when serving as president of SAE International, I had the good fortune to participate in developing two very significant opportunities that I would like to share with you. Based on these opportunities, we can take specific, strong action that is likely to be highly effective.

The first opportunity is presented by SAE. Last year, SAE International formed an SAE India Affiliate. The Indian Automobile Engineers Association dissolved itself and merged into SAE India.

SAE India and ASEI are getting ready to sign an agreement to cooperate. The agreement will be broad enough to cover several actions including the following: SAE India and ASEI can link Web sites and also link sites to student chapters. Whenever any ASEI members travel to India, they can let SAE India know and send them their bio-data. When travel plans and program plans intersect, SAE India Sections can arrange for the visiting ASEI member to give a talk at the local section meeting, student club meeting or the like. ASEI can mentor and support individual students and/or student teams. SAE India has started an SAE India Foundation. You can contribute tax-deductible dollars to this fund through SAE Foundation.

The Principal Scientific Advisor (PSA), Dr. R. Chidambaram, presents the second opportunity to the Government of India. Considering the importance of mobility and of the automobile industry to economic growth, the PSA has initiated a cooperative research program. I have the honor to serve as Co-Chair of this program along with Prof. S. Mohan of IISc, Bangalore. It is generally recognized that at a domestic production of 600,000 cars a year, industry in India does not have a high domestic volume to stay competitive. It must become competitive on the world stage, supplying not just components but intelligent subsystems to world-class automobile manufacturers. It must develop these products with vested intellectual property rights, not just manufacture them under license or production orders made to print. Industry can also make use of the synergy presented by the strong software capability in India. A car today can be classified as a "computer on wheels," with 40 percent of its value tied up in controls and systems. Automobile and supplier industry in India must develop a strong R&D tradition.

Technical areas of emphasis have been selected for the program. Expert panels are writing position papers and will define projects. The program is designed to conduct the basic technology part in an open, public/university forum. Confidential parts of the program will be conducted separately by industry. Thus, there will not be any conflict of interest for you to help in the basic technology portion. A comprehensive database of NRI experts will be developed and made available to the program participants. NRI experts may be called upon to review position papers, design and review research projects and/or offer advice during the execution of the project. You might also be able to help connect suppliers in India with potential OEM/Tier 1 customers in the U.S. Please visit www.acmainfo.com for a review of the status of automobile and component industry in India. If you have the ability and interest to help, please send your bio-data to sm.shahed@honeywell.com.

I am excited about both these opportunities to get involved in technology development in India. I hope that ASEI members will be able to respond in an energetic way.
On behalf of the American Society of Engineers of Indian Origin and all those who benefit directly and indirectly from its work, we thank our scholarship sponsors for the most generous contribution to the ASEI Scholarship Fund. This fund enabled ASEI to award 20 scholarships to students — high school/undergraduate/graduate — to pursue engineering or related fields. It's through generous sponsors like you that ASEI can continue its mission to develop and fund programs that foster student entry into and completion of engineering, scientific and technical education.

Thank you again for your generosity, which will support young talent in their educational endeavors.

Yours Sincerely,

Rama Ramamurthy
Chairperson
ASEI-2003 Scholarship Committee

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To
ASEI
For your 20th Annual National Convention

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Address: 3261 Altamont Ave., Cleveland Ohio 44118
Phone: 216-321-8729  Fax: 216-321-1129
India Ohio Chamber of Commerce Welcomes ASEI members

Best Wishes for a Successful Convention!

India Ohio Chamber of Commerce's mission is to create economic development by promoting business and commerce between Ohio and India.

The IOCC provides members with opportunities, resources and advantages to explore new markets and develop international business relationships.

Member services include:
- Web site member directory
- Educational seminars
- Networking functions
- Trade missions
- Liaison between U.S. and Indian companies

IOCC
India Ohio Chamber of Commerce

For more information, please contact:
The India Ohio Chamber of Commerce • 1350 Euclid Avenue Ste. 800 Cleveland, OH 44115-1877
Ms. Radhika Reddy, President
Ph: 216.774.1179
Mr. Ash Chawla, Chairman, Public Relations & Marketing Committee
Ph: 440.871.1721
PERSONAL INFORMATION:

56 years old, married to Usha for 32 years with two daughters, Manisha and Ritu.

Came to the U.S. in 1969 as a student at Ohio State University in Columbus, Ohio. Graduated from OSU in 1970 with a Master's Degree in Mechanical Engineering. Moved to Cleveland in 1972 and while working full time earned MBA Degree from Cleveland State University in 1975, graduating with honors (Beta Gamma Sigma). Currently residing in Hunting Valley, Ohio.

BUSINESS ASSOCIATIONS:

In 1975, launched a small distribution company immediately following graduation from CSU with an MBA. Through internal growth and careful strategic planning, grew the company, Transtar Industries, into an international business as the leading U.S. company in the distribution of automotive transmission replacement parts to the aftermarket. Diversified the business by extending into two other companies, i.e., manufacturer of automotive refinishing products and the distribution of high-performance engine components. Combined Transtar (group) currently has operations in 30 different cities with revenue approaching $250 million, selling its products in over 60 countries.

AWARDS & RECOGNITIONS:

Transtar has earned dozens of awards for its outstanding growth and community involvement, including the Arthur Anderson 2000 Leadership Award, the Inside Business NEO Success Award, the Association of Corporate Growth Deal Makers Award and Governor's “E” Award (twice) for excellence in export.

SEVERAL AWARDS RECEIVED PERSONALLY INCLUDE:

• Distinguished Alumni Award from Cleveland State University, in 1990

• Runner-up for the National Entrepreneur of the Year competition sponsored by Inc. magazine and Ernst & Young, in 1995

• George Dively Award by the Harvard University Business School, in 1999

• Honorary Doctorate Degree in Business, from Cleveland State University, in 2001

• Ellis Island Medal of Honor for outstanding American Citizens, in 2001

• International Executive of the Year Award by the World Trade Center of Cleveland, in 2002

In 1999, recognized by CSU by naming the new Business School building as “Monte Ahuja Hall,” the home of the College of Business Administration.

COMMUNITY INVOLVEMENT:

Served as Trustee of the Cleveland State University Board for 9 years (1991-2000) and its Chairman of the Board for six (6) years.

CURRENTLY SERVING AS A MEMBER OF THE BOARD/ TRUSTEES FOR THE FOLLOWING ORGANIZATIONS:

• University Hospitals Health System of Cleveland (Vice-Chairman)
• Cleveland Cuyahoga County Port Authority
• Greater Cleveland Growth Association
• United Way (Executive Committee)
• Cleveland Council on World Affairs

Previously served with Greater Cleveland Roundtable, The National Conference, World Trade Center Advisory Council, Ohio Export Promotion and Trade Council (education committee), and as Chairman of the CSU Task Force, a statewide project initiated by Gov. Voinovich under “Ohio Task Force for Managing Future Higher Education in the State of Ohio.” Recognized by the Governor for the creative initiatives and cost savings projects at CSU.

PERSONAL INTERESTS/CLUB ASSOCIATIONS:

Golf and traveling; member following clubs:
Pepper Pike Country Club, Cleveland, Ohio
Canterbury Golf Club, Cleveland, Ohio
Double Eagle Golf Club, Columbus, Ohio
Peter Dye Golf Club, Bridgeport, WV
Longboat Key Club, Longboat Key, FL

Also, member of the “50” Club of Cleveland as well as The Union Club.
Best Wishes to
ASEI
for Your
20th Annual National Convention
EATON
Cleveland: A Great Destination for Bioscience Companies

Northeast Ohio has long been recognized as a world leader in health care and bioscience research and a growing center for bioscience business development. With an outstanding array of assets, including world-class bioscience research, a medical care community second to none, and a thriving bioscience business base, Greater Cleveland is also increasingly a destination for overseas bioscience companies seeking entry to the key American market.

Consider some relevant facts about Cleveland's research and care communities. In medical care:

- The Cleveland Clinic is ranked as the third overall hospital in the U.S. It has nine additional specialty areas in the top 25.

- University Hospitals Health System includes Rainbow Babies & Children's Hospital, ranked No. 5 among pediatric hospitals, and is nationally ranked in 13 specialties.

- Other centers of excellence include Metro Health Medical Center (burn treatment), Summa Health System, and more.

In the area of research, Cleveland is equally strong:

- Case Western Reserve University is ranked 10th in NIH funding nationally. It boasts a top-tier medical school and a nationally ranked biomedical engineering department.

- The Cleveland Clinic's Learner Research Institute is No. 7 in funding for a private institution, and is home to the largest hospital-based biomedical engineering department in the world.

- University Hospitals Health System is completing a 320,000-square-foot facility, scheduled to open late this year, that will be home to hundreds of new researchers.

BioEnterprise: A Partner for Growing Bioscience Companies

Companies seeking to do business in Cleveland also can draw upon the experience and assistance of a unique economic development entity: BioEnter prise Corp.

BioEnterprise is a business formation, attraction and acceleration company committed to being a leader in supporting the growth of bioscience companies. BioEnterprise provides mission-critical senior management and support services to early-stage companies. The BioEnterprise management team is composed of executives with extensive experience in growing bioscience and technology companies.

Based in Cleveland, its founding and equal partners are Cleveland's three top institutions: The Cleveland Clinic, University Hospitals Health System, and Case Western Reserve University.

In keeping with its goal to be a leader in growing bioscience companies, BioEnterprise Corp. has as one of its primary objectives the attraction and recruitment to Northeast Ohio of promising bioscience companies, from both domestic and international locations. This Company Attraction Program is under the operational management of BioEnterprise President Matt Jennings.

BioEnterprise can offer extraordinary value to the select companies meeting its criteria for partnership, including one-stop access to proprietary venture capital, investment banking and government funding programs; facilitated research relationships through access to its founding partners, CWRU, The Cleveland Clinic and University Hospitals; and coordination of the myriad private and public incentives available to bioscience companies locating in Northeast Ohio.

Our targets for recruitment include companies with existing or potential ties to the region, companies that match local research and market strengths and require assistance with commercialization of the business within the United States.

Companies or individuals looking to learn more about the excellent bioscience opportunities in Northeast Ohio should contact BioEnterprise at (216) 658-3999, or visit the BioEnterprise Web site at www.bioenterprise.com.
PDM Healthcare Welcomes ASEI Members to Cleveland!

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To survive in healthcare's constantly changing environment, take advantage of every opportunity to increase savings and efficiency.

The economies of scale and purchasing power provided by PDM allows physicians to immediately achieve increased efficiency, savings, and profitability.

Don't Let Your Costs Spiral Out of Control, Contact PDM Healthcare at 440-871-1721 or online at www.pdmhealthcare.com to Join PDM—Your True Partner in Savings.
Sailing the Sea of Opportunity

Jawaharlal Nehru once made a very poignant statement: “Who lives if India dies and who dies if India lives.” This statement implied that the existence of India does not threaten anyone else, as she symbolizes peace and harmony, but we stand to lose immensely if India were to perish. This article is my attempt to focus on yet another dimension of that very land, a dimension that is growing very rapidly in recent years. I would like to emphasize the budding relationship between the two great democracies of the world, India and the United States of America.

INDIA EXPORT TO U.S.

The worldwide merchandise exports to the U.S. declined by 0.7 percent, only nine out of 25 countries' exports to the U.S. registered growth, and surprisingly India's performance was the best, as it registered 20.3 percent growth followed by Ireland (19.1 percent) and China (17.4 percent). Merchandise export grew from $8.33b in 2002 to $10.03b in 2003. The major Indian export growth sectors are: diamonds/gold +43 percent, textiles +21 percent, fish and seafood +39 percent and pharmaceuticals +127 percent.

U.S. EXPORT TO INDIA

Worldwide exports from the U.S. dipped by 6.2 percent, declining in 23 of the top 30 U.S. export destinations. India is one of seven countries to which American exports rose in 2002 compared to 2001. There was a 4.8 percent increase in imports from the U.S. in only 10 months of 2002. The major U.S. exports to India are machinery (computer, gas turbines, telecom, medical and surgical instruments), aircraft and space craft, precious stones, organic chemicals and miscellaneous chemical products.

SUCCESS STORIES

General Electric: A majority of GE’s business is based in India, be it aircraft, broadcasting, or lighting and medical systems. Nearly 19,000 GE professionals are based in India.

Whirlpool: It is a market leader in appliance manufacturing in India and has already invested $200 million in the Indian market and plans to spend $20 million-$80 million every year on new brands.

New Sectors: India is opening its door wider for more foreign investment by opening lucrative sectors like banking and insurance to the world.

New opportunities have risen in embedded software, areas like networking solutions, use of smart devices and multimedia content management is fast gaining popularity.

Bio-informatics: A new area generating much interest in the global market is bio-informatics, and India is the leader in this field. The current market is between $1 billion-$3 billion and is expected to grow exponentially.

INDIAN INVESTMENT IN THE U.S.

Indian companies have successfully entered the U.S. market and are spreading their tentacles. United Brewery of India has bought many breweries all over the States. Wipro announced in 2002 that a definite agreement has been signed to acquire the global energy practice of American Management Systems for $26 million, payable in cash. No mean achievement this!

India faces stiff competition from its Asian counterpart China. China, with its much more efficient infrastructure and growth rate, have whisked away many investors from India. India's growth rate may be slow compared to China, but we know what they say about the slow and steady. India's English-speaking professional pool is a major advantage to the world. In fact, India's much-maligned state-owned refineries are far more efficient in terms of manpower utilization than Chinese refineries. In dollar terms, a worker in an Indian refinery on average contributes $29,140 of the total output in the industry whereas the Chinese counterpart contributes only $9,194.

The Indo-U.S. relationship is at the budding stage of development, and the way it is progressing the relationship will emerge to be strong and healthy. India is fast becoming a sea of opportunity, and let us be the first ones to sail on it.

- Anchal Sethi
We wish

ASEI

the very best

on their

20th Annual Convention

TRANSTAR
TRANSTAR INDUSTRIES, INC.
Of Service to your COUNTRY

By Jacob Mathew Ph. D., EMBA
President, International Cyber Business Services Inc.

HOW A PROFESSOR AT IIT Kharagpur INSPIRED AN ALUMNUS TO DEVELOP AN AWARD-WINNING WEB SITE FOR HEALTH.

I remember that spring day in 1971. I had finished all my final examinations and was getting ready to return home before leaving for the United States for graduate studies. I went to Professor Berkovskiy and asked for an autograph. Prof. Berkovskiy contemplated for a short time and then wrote, “I hope you will be of service to your country.”

I was very close to Prof. Berkovskiy. I was assigned to help him (with language) when he came from Moscow Institute of Steels and Alloys (MISA) to set up the first materials science center in Asia at IIT Kharagpur. He was also my undergraduate thesis advisor.

It was 1971 — at the height of the Cold War between the United States and Soviet Union. When Prof. Berkovskiy learned that I was applying for higher studies in the United States, he was shocked. He advised me to go to Moscow instead; he had also secured an admission for me at MISA (Moscow Institute of Steels and Alloys). When I got full scholarship from a U.S. university, I told him that I had decided to accept it. He was very disappointed.

I had kept in touch with Prof. Berkovskiy for a few months after my arrival in Pittsburgh. Then the communication slowly dwindled. I thought about his words often.

I got an opportunity 25 years later. I had founded ICBS Inc. and was looking forward to developing a “signature product.” Every time I talk to Paramjit Singh, he would talk about things such as “thinking outside the box,” living “holistically,” etc. It was almost like Param just came down from an alien planet. Then one day, my wife, who is a staff psychiatrist at Kaiser Permanente Health System, asked me whether I knew of a good Web site that she could recommend to her patients. Although it was the infancy of Internet, many of her well-educated patients did a lot of research on their health on the Web. She was getting increasingly concerned about herbal medicine. A herb called St. John’s wort was getting increasingly popular with patients with depression. What was less known at that time was that St. John’s wort interacts with prescription antidepressants, often fatally. Most doctors had no clue what these herbs did.

I searched the Web, evaluating the Web sites at that time. Unfortunately, most of the Web sites were geared toward selling something and not for giving information. The information presented was of questionable value.

I knew that there was an opportunity to take advantage of my expertise in artificial intelligence and familiarity with traditional and Western medicine to develop a Web site for health that will provide comprehensive information about all systems of medicine in the world.

By highlighting therapies such as ayurveda, aromatherapy, yoga, meditation, herbal medicine, etc., that originated in India, I could also fulfill Prof. Berkovskiy’s wish.

The result was the founding of Holisticonline.com, a Web site that provides objective information about all aspects of health — Western medicine and alternative medicine.

Within two years after Holisticonline.com went online, Psychology Today, a prestigious professional magazine, recommended it as the best site for ayurveda. When a patient asked a pharmacist at the Mayo Clinic for a source to look for information about alternative medicine, the recommendation was to refer to Holisticonline.com.

Holisticonline.com came into being as a result of a challenge made by an IIT Kharagpur professor to do something for the country that has offered us so much. It was my “guru dakshina” back to my mother country.

About the Author
Jacob Mathew is the vice president and webmaster of ASEI Ohio Chapter. He is the president and founder of International Cyber Business Services Inc. (ICBS Inc.), a Web development company. He and his wife, Shila Mathew, MD, co-founded Holisticonline.com. Dr. Mathew is chief editor for Holisticonline.com, Firstholistic.com and Ecomhelp.com.
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- Recognizes Members' Achievements
- Supports Scholarship Programs
- Promotes P.E. Registration
With best wishes and compliments to
20th Annual Convention of ASEI
From American Society of Engineers of Indian Origin: Michigan Chapter

P.O. Box 87676
Canton, Michigan 48187
313-345-5900
www.michiganasei.org
officers@aseimichigan.org

For ASEI - Michigan’s upcoming seminars, picnic and chapter convention contact any of the following Executive Committee or Advisory Committee Members:

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Sudheer Jain
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With best wishes and compliments...

to 20th Annual CONVENTION of ASEI

from American Society of Engineers of Indian Origin
National Capital Chapter (ASEI-NCC)

www.aseio.org • 11101 Fruitwood Drive • Bowie, MD 20720 • 301-464-5042

For ASEI-NCC’s upcoming seminars, picnic
and chapter convention, contact any of the following
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CASE IN POINT

INDUSTRY CLIENT: Major tomato-paste processor
OBJECTIVE: Implement advanced evaporator-control strategy to enable future optimization
RESULTS: Developed a ProcessLogix-based integrated control system that automatically adjusts to changing fruit characteristics and coordinates downstream adjustment. System provides accurate 90-day production archive for off-season evaluation. Client realized 30-day payback after second phase of three-phase strategy.

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