UMESH BABU ROHATGI

AMERICAN SOCIETY OF ENGINEERS FROM INDIA

CAREER PLANNING & ENHANCEMENT

FIFTH NATIONAL CONVENTION

SATURDAY, SEPTEMBER 10, 1988
HYATT REGENCY, DEARBORN, MICHIGAN

ASEI, P.O. Box 84407 (6850 N. Adams) • Troy, Michigan 48099

METCO SERVICES, INC.

Management, Engineering & Technical Consultants

* Management Consulting
* Consulting Engineering
* Land Surveying & Development
* Construction Management
* Architecture
* Technology Transfer

CORPORATE OFFICE : 1420 WASHINGTON BOULEVARD, DETROIT, MI 48226
(313) 961-4560

Branch Office : 28517 Hoover, Warren, MI 48093
(313) 751-5330

QUALITY * DEDICATION * EXCELLENCE

AMERICAN SOCIETY OF ENGINEERS FROM INDIA

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 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

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.

STUDENT AFFAIRS

- Providing guidance to Students
- Establish Merit Scholarships
- Assist in Practical Training and job placement

LIAISON WITH INDIA

- Establish working relationship with government and private organizations in India

ORGANIZATIONAL MATTERS

- Establish a National Office
- Establish an Editorial Board and Publish Quality Newsletter
- Increase Membership
- Publish Directory of Members
- Increase awarness of ASEI
- Facilitate local chapter meetings

CONVENTIONS & AFFILIATIONS

- Conduct Conventions throughout 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

MESSAGE FROM . . . . . .

J. Nirdosh Reddy
President

B.V. (Veni) Rao
Chairman of the Board

For the long term health of our organization, we believe that it is important not only to get positive results in a given year but also to establish a process by which these results can be obtained year after year. The focus of efforts during 1987-88 has been on establishing such a process for conducting our business. We have established for each of the committees a mission statement followed by specific objectives for the year and a list of proposed activities. We are fortunate to have dedicated individuals to serve on several committees. This, we think, will set the stage for continuing growth nationwide.

As can be seen from the highlights on the facing page, ASEI has come a long way. However, much needs to be done to realize our **VISION.** We urge each of our members to volunteer their services to:

- recruit their friends nationwide into the society. Our goal is to have members from all 50 states.
- work on a committee of their choice.

Where possible, it might be desirable for the present chairpersons to continue on for one more year or at least be on the committee as ex-officio member to guide or assist the next chairperson.

In the years ahead, we need to strengthen our networking abilities to enable our fellow members to be at the right place at the right time. We also need to network with other similar organizations. Organizing annual conventions in different parts of the country will promote our society's growth nation wide.

Our sincere thanks go to the chairpersons of the various committees, the executive committee members, the Directors of the Board, and all the volunteers who have contributed to the growth of ASEI. Our special thanks to all the Life Members for their expression of confidence in the long term viability of ASEI.

ASEI HIGHLIGHTS OF 1987-88

- Our society is gaining reputation as a professional organization - an organization to belong to.

- Conducted membership drives in
  -- Wahington, D.C.
  -- Houston, Texas
  -- Los Angeles, California
  -- Columbus/Indianapolis, Indiana
  -- University of Michigan, Ann Arbor, Michigan

- Membership continues to grow strong (from 417 a year ago to 570 as we go to press).

- We have members from 15 states.

- Life membership has more than tripled.

- Fund raising has been best ever; started receiving corporate contributions; our treasury is in a position to support our growth nationwide.

- Established an *"ASEI Scholarship"* of $1,000 to assist deserving undergraduate/graduate students of Asian Indian origin in the field of engineering.

- Established two additional annual awards to recognize
  -- Managerial/Entrepreneurial excellence
  -- Outstanding Student

- Started a major effort to study and revise the constitution to permit smoother transition of activities

- Established a formal contact with the Scientific Attache' to the Indian Embassy in Washington, D.C. We are exploring the feasibility of ASEI members participating in numerous technical projects in India.

- Published newsletter quarterly informing membership of the developments here and in India.

- The membership directory published last year proved to be quite useful. Efforts are under way to update the directory by the year end.

- Co-sponsored activities with other organizations, such as
  -- ISPE
  -- TANA
  -- CO-AIM

1988 ASEI National Convention
Career Planning and Enhancement

Our convention attempts to convey the message that ASEI is willing to get involved in and be a major force in helping its members in advancing their careers, promoting networking and facilitating technology transfer and entrepreneurship.

The format for this year's convention is unique in that we have a plenary session which will bring all participants together. The focus of plenary session is on "Striving for Excellence". This timely topic not only would focus on our competitiveness as a country in the world, but would also provide guidelines for individual excellence in Engineering profession. This will be followed by three parallel sessions which provide multiple choice to the memebrs in this Career related seminar.

- Session A is on "Technology Transfer". It is for those interested in business activities with/in India.
- Session B is on "Marketing for Success". This is to promote personal growth and help us advance our careers.
- Session C is on "Entering the Job Market" meant specially for students and recent graduates.

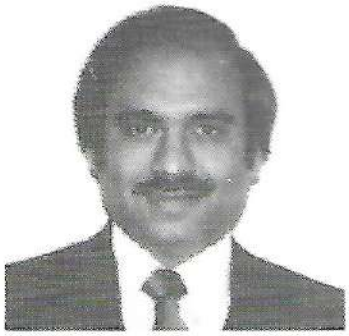
The evening banquet program is equally exciting. An Indian cuisine will be followed by a key-note speech by Dr. Ranganath Nayak and presentations of national awards. The program will conclude by grand flute recital by Pandit Hariprasad Chaurasia.

In line with goals of ASEI, the focus of convention has been to serve its members. To put together an impressive slate of speakers and other participants took a lot of dedicated effort of several volunteers. I sincerely thank all the volunteers and committee members for their efforts in making this convention a memorable event.

Noor Kapadia
Convention Chairman

Executive Committee Members & Committee Chairpersons

Shailesh Vora
Vice President



Kanu Mehta
Treasurer

Ramesh Patel
Committee Coordinator

Manohar Motwani
Secretary

S. M. Shahed
Awards

Jehangir Mistry
Editorial

Asha Reddy
Membership

Prakash Shrivastava
India Affairs

Raj Raja
Public Relations

Snehamay Khasnabis
Student Affairs

Bhagwan Dashairya
Placement

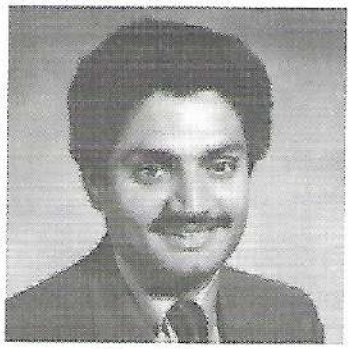
Jagdish Agrawal
Liaison

National Convention Committee - 1988

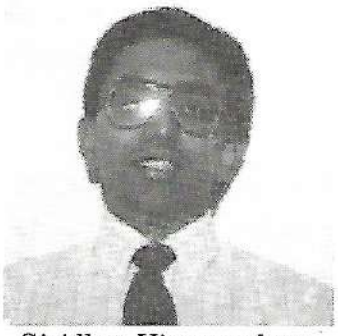

Mahesh Bhattacharya


Ramesh Mangrulkar


Usha Raja


Ravi Kapur


Manu Vedapudi


Giridher Viswanathan


Mamta Sabharwal


Arjun Tuteja


Meera Vijan


Lakshmi Vora


Ramakrishna Tadi


Raj Vijayendran

AMERICAN SUPPLIER INSTITUTE

World Center For Taguchi Methods And Quality Function Deployment

- "We are a non-profit company dedicated toward continuous improvement in quality and cost to help American industries become more competitive in world markets".

- This is achieved through;
  1. Education for a new way of thinking
  2. Training to enhance skill development
  3. Consulting to develop internal operating strategies
  4. Project applications to achieve improvement
  5. Over 6,000 case studies facilitated since 1981

- Disciplines include;
  1. Statistical Thinking (Deming concepts)
  2. Process Capability Analysis (CPk)
  3. Parameter Design (Taguchi Methods)
  4. Quality Function Deployment (QFD)
  5. Policy Management (Presidents Audit)

For further information please write or call:

Six Parklane Boulevard, Suite 411 • Dearborn, MI 48126 • (313) 336-8877

PLENARY SESSION

STRIVING FOR EXCELLENCE

DR. BRUNO O. WEINSCHEL

The first negative merchandise trade balance for the U.S. in 1971, occured before OPEC. The trade balance in electronics and high-tech remained positive until about 1984. While leading in basic research and innovaions, we lag in their applications.

U.S. industrial management is mainly run by legal and financial experts, in contrast to technocrats in West Germany and Japan. "Total quality" a la Deming and statstical quality control a la Juro blossomed first in Japan after its introduction by U.S. occupational forces. JITS, resulting in high shipment-to-inventory ratios comes from Japan. Reduction of the time-to realization of an idea by using engineering teams were new to the U.S. We still require two to three times the time Japanese take to introduce a new product. Better utilization of factory manpower by Japanese management improved quality and productivity. This includes reducing layers of management and pushing the responsibility to the lowest level.

U.S. engineering education emphasizing manufacturing processes, design for manufacturability, quality and end-user satisfaction are on the increase.

Engineering emphasis on continued improvements in performance, quality and reduction of cost is practiced by our successful trading partners.

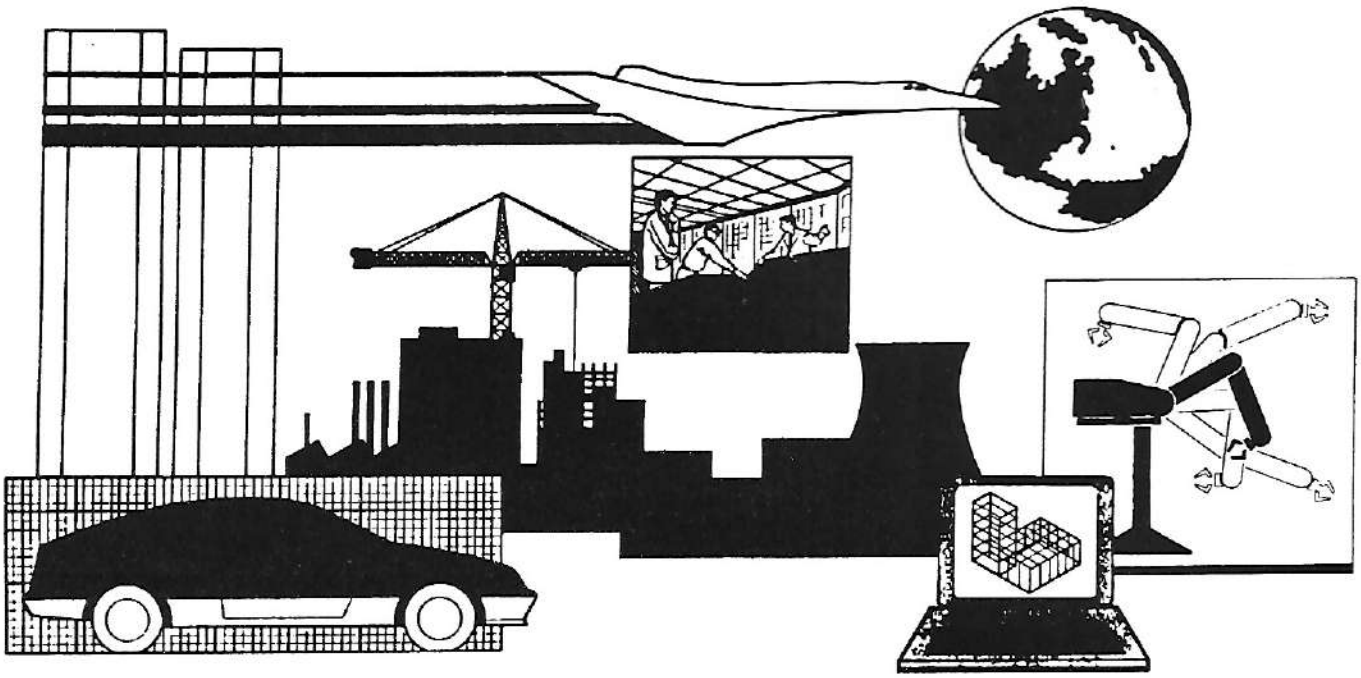
In the macro-economic area, the high cost of capital, the low skill base of the work force and excessive consumption require political solutions. Great military power is neither necessary nor sufficient for world leadership, but economic streangth is. Investment into improved productive facilities must become more important than increased consumption. Our emphasis must be on excellence and world class quality both in our education and industrial establishment as well as in our government.

Born in 1919, Stuttgart, Germany. BA-Physics (equivalent), 1939-40 Graduate Physics Work, Columbia University, 1966 DR-Engineering/Technical University, Munich, P.E. in D.C., MD.

Sr. Engineer, Electrical Test Planning, Bell System, 1943-44. Chief Engineer, Industrial Instruments, 1944-48. Section Chief, National Bureau of Standards, 1949-1952. Chief Engineer, Weinschel Engineering, 1952-1986.

Fellow, IEEE, 1966, "for contributions in the field of precision microwave measurements and advancement of attenuation measurements". Chairman, U.S. URSI Commission I, 1967-70. Fellow IEE, London, 1977. IEEE Vice President, Professional Activities, 1978-79. Chairman, Engineering Affairs Council, American Association of Engineering Societies, 1980-81. IEEE Secretary, 1980. AAES Principal Investigator, NSF/DOD Study on Engineering Utilization, 1983-84. 1985 Recipient, William A. Wildhack Award, NCSL, "for contribution to the field of metrology." IEEE President, 1986. Member, President Regan's Committee, National Medal of Science, 1986-87.

Author, co-author, 52 journal articles; inventor, co-inventor 20 patents; reviewer for several journals.



A. G. & Associates, Inc.
23077 Greenfield, Suite 162
Southfield, MI 48075
Tel. No. (313) 552-8255
Fax No. (313) 552-8180

A. G. Technical Associates, Inc.

408 North Cedar Bluff Road, Suite 391
Knoxville, TN 47923
Tel. No. (615) 692-9844
Fax No. (615) 691-2749

9051 Executive Park Drive, #104
Knoxville, TN 37923

AGA a.g. & associates inc.

technical consultants

SESSION A: TECHNOLOGY TRANSFER

CHAIRMAN: DR. PRAKASH C. SHRIVASTAVA

Prosperity and economic independence of a nation greatly depend on the indigenous technology-base. However, transfer of technology from external sources also contribute significantly in augmenting the industrial needs of a country. Import of technology is generally influenced by the need to modernize industries. The basic necessities and priorities indirectly dictate the "what, where, and how" of the Technology transfer in a developing country. Several incentives have been offered by the Government for setting up industries in India by the non-resident Indians, and selective areas of technology have been opened for foreign investments. The first part of session would focus on the issues of technology transfer to India and opportunities for setting up manufacturing industries.

Facilities and procedures established in promoting industrial development are influenced by economic and political circumstances as well as relations and economic ties with the foreign countries. How do the American companies or American-based Indian companies view the investment climate in India would be discussed in the second part of the session. This session has been organized to provide a forum for open discussion between the representatives of the government and the american-based companies and non-resident Indians. Hopefully, this session would focus on basic issues of Technology Transfer to India and provide an opportunity for frank and free dialog.

Prakash Shrivastava received the B.E. degree in Electronics from Jabalpur University, the M.Tech. degree in Electrical Engineering from IIT-Bombay, and the M.A. and Ph.D. degrees in Mechanical & Aerospace Engineering from Princeton University. He held several positions at the Aeronautical Development Establishment, Bangalore. Currently, he is a Senior Project Engineer at the Advanced Engineering Staff of General Motors Corporation.

A-1: TECHNOLOGY TRANSFER

TECHNOLOGY NEEDS IN INDIA: WHAT, WHERE AND HOW

Dr. S. S. Mathur

Development of a country is considered synonymous in modern times with industrial development. The welfare of the people is expressed in terms of G.N.P. or the GDP and per capita income reflects the quality of life. These factors tend to divide the world into: haves and have nots, more popularly described as developed and developing nations.

The economic disparity between countries has essentially been due to the cumulative effect of technological developments during the last three centuries. These developments, initially triggered by the Industrial Revolution, and sustained by development of internal combustion engine, electrical machinery and lately by semiconducting materials, have also been made possible by the availability of cheap energy sources. The developing countries face a big challenge in bridging the economic and technological gaps in the face of increasing cost and fuel and rapid rate of obsolescence of technology.

In a big country like India, the scenario differs in different regions and also within a region. What does India need? There is no simple answer to this question. There has been and there still is a big difference in the life-style of the people in India and the developing countries. Are we to use the western way of life as a model for development or, are we to plan for future in conformity and concordance with our traditions and culture? Even in India answers to these questions are not necessarily unique and any practical approach has to keep both these aspects in mind.

India being largely a rural and agricultural community, the highest priority must go to the improvements in the rural sector. Innovations in agricultural methods, irrigation, post harvest technology, storage and distribution are crucial for better utilization of our agricultural land and manpower. At the same time, there is a lot that needs to be done to provide proper health care, sanitation, and means of transportation. Providing clean drinking water and fuel for cooking and other domestic needs continues to be important aspects of any rural development program.

After independence there has been considerable emphasis on industrialization in the country. The efforts have been quite successful and India today in terms of industrial production ranks about tenth in the world. This should not be a cause of complacency because if one

looks critically as the trends of industrial production in India one finds that India has not been very active in developing new products and technology. This may have been due to the ensured quick returns on investments made in imported technology in the past which discouraged investments in indigenous technology and industrial process. The situation, however, is now changing.

A factor which is very important and favorable for India's future development is the strong base set up in the country for education. The quality of higher education is undoubtedly comparable to the best in the world as is evidenced by the success of Indian professionals in highly competitive markets of the USA and other western countries. A number of these professionals who are very competent, are taking to new ventures with the result that many new products are now being manufactured in India than ever before. Entry of trained professionals in the industrial field as entrepreneurs has opened new avenues to test and utilize new concepts and processes developed locally. The fruits of these developments should be visible in five to ten years.

India today has the technical competence to undertake a variety of activities for improvement in the rural areas. The main problem is that of resources and the reluctance of the educated and the professionally trained personnel to work in villages. Incentives and improvements in living conditions in villages are likely to change the situation for the better. This however, needs a dedicated and sustained effort on the part of all concerned. Voluntary organizations are already in the field and in spite of their small work force, much useful work has been done towards these objectives.

In the industrial sector, two different approaches are needed simultaneously. One the one hand, there is a need to modernize existing industries and on the other, we need to step into emerging areas of technology. In this way India can and should utilize fully their abundant resources of trained technical manpower and improve productivity. It is also necessary to improve quality and cost competitiveness which are essential for creating an internation market for products. We should not hesitate to import technology where needed but the effort should be to assimilate it and update with our own efforts. This requires a genuine linkage between industry and R & D organizations both in-house and outside.

Dr. S. S. Mathur is a professor at the Center for Energy Studies at the Indian Institute of Technology, New Delhi. He is now on deputation as the Minister for Education and Culture at the Embassy of India in Washington D.C. Prior to joining IIT, he worked at the National Physical Laboratory in New Delhi. His wide area of specialization ranges from ultrasonics, to acoustics, and to energy. Dr. Mathur has about one hundred publications in various fields to his credit. A Foundation Fellow of the Acoustical Society of India, and a Life Member of the Indian Society for Technical Education, his other professional memberships include Solar Energy Society of India, International Solar Energy Society, Global Energy Society and the Energy Society. Dr. Mathur received his Ph.D. and M.Sc. degrees at Delhi University.

A-2: TECHNOLOGY TRANSFER

MANUFACTURING OPPORTUNITIES FOR NRI's

C. K. SHARMA

A) Industrial Investment Facilities

Non- Repatriable : Upto 100% in any partnership/propriership joint stock companies except those dealing in real estate business or deriving income from agricultural/plantation activities.

Repartiable:

i) 40% scheme: In issues of new or existing companies raising capital through prospectus, upto a ceiling of Rs 4 million only if by private placement in a public limited company.

ii) 74% scheme : Appendix I Priority Industries (AnnexureI)

- Export- Oriented Industries
- Hotels 3 to 5 stars
- Hospital/Diagnostic Centres

B) Portfolio Investment in shares

Debentures through Stock EXchanges :

Upto 1% of the equity capital of the company by individual NRI/companies subject to an overall ceiling of 5% of the equity.

C) Deposits with Public Limited Companies:

For three years with full repatriation rights.

D) Deposits with Banks:

i) Non-Resident (External) Account.

ii) Foriegn Currency Non-Resident Account (FCNR) either in US dollars or in sterling pounds.

E) Investment in Government Securities and
Units of Unit Trust Of India:

Facilities available both on repatriation and non-repartriation basis.

Interest on National Savings Certificates is 1% higher than offered locally.

Special Tax Cocessions:

i) NRIs are exempted from income-tax of
- Interest income from NRE and FCNR accounts
- Dividend income from units of UTI
- Interest income from National Saving Certificates and other specified government securities

ii) Income of NRIs derived from shares (in the form of dividends), debentures and deposits with public limited companies are taxed at a concessional rate of 20%.

iii) NRIs are eligible for a concessional rate of income-tax of 20% on long term capital gains derived from the transfer of foreign exchange assets.

iv) NRIs are eligible for wealth-tax exemption for 7years on assets brought by them. Total exemption from wealth-tax is also available on investments made in initial issues of priority sector companies, National Savings Certificates and balances held in NRE and FCNR accounts.

v) No gift tax is applicable if such gifts are made out of NRE/FCNR accounts or out of remittances from abroad.

Recently the Govt. of India has announced further liberalization in investment policies. These include opportunities relating to import of materials and equipment by NRIs, Investment in shipping industry, diagnostic centres and sick units.

For further information, NRIs may contact Indian Invesment center (IIC) located at 445 Park Ave. N.Y, N.Y, 10022. (Ph: 212-753-3600)

Mr. C.K.Sharma is the resident director of the Investment centre, New York. He joined the Indian Administrative Service in 1970.

During his career since 1971 Mr.Sharma has held postings in ministries like Finance, Commerce, Industry, Steel & Mines, Planning and Labour among many others.

During these postings he has dealt with various subjects such as financial management, budget expenditure, foriegn trade, industrial development, steel industry and mining sector, Five-year plans and labour legislation etc.

Mr.Sharma has toured U.S.A, Europe, Asia and South East Asia. During his various postings, Mr.Sharma has attended international conferences/ seminars. He has also been an Indian delegate to international conferences such as those of UNESCO & ILO (International Labour Organisation)

American Perspective on Doing Business with/in India: Case Studies

Economic, cultural, and social environments of a country influence the policies regarding setting up new business ventures by local and foreign firms. In the past few years, the changes in government policies have attracted new investments from individuals in the United States. The following panelists in this session are veterans in doing business in India and United States. They are thus best qualified in presenting a comparative analysis and perspective of doing business with/in India. The speakers from Embassy of India and Indian Investment Center will also join the panel discussion.

Dr. Gajanan Sabnis

Dr. Sabnis is the president of Technology Transfer Consultants, Inc., and Construction Management Firm. He is an author of several books on Industrial Buildings. He has been a Professor at the Howard University since 1973. He is a consultant in the areas of Chemicals (related to Buildings & Bridges industries) and Water Treatment plants. He also provides assistance in Export related matters to American and Indian business. He obtained Ph.D. in civil Engineering from Cornell University in 1967.

Mr. Jagdish Vasa

Mr. Jagdish Vasa is the Managing Director of Gayatri Pestichem Mfg. Pvt. Ltd., Bombay, India. He worked in the United States in Air & Water Pollution firm and various other Chemical Industries till 1979. He joined the Mayesh Chemical Co., Indore, India in 1979 as an Executive Director and revived it from bankruptcy. In 1983, he bought a paper company and turned it into a thriving company (now called Gayatri) whose sales exceeded $3.5 millions last year. Mr. Vasa obtained B.S. degree in Chemical Engineering from University of Lowell, MA in 1964, and MBA degree from St. Joseph College in Philadelphia in 1975.

Gajanan Sabnis

Jagdish Vasa

RETROFIT

THE WHITNEY: WHERE THE HEATING AND COOLING SYSTEM IS UP-TO-DATE, NOT OUT-OF-SYNC.

THE CLOSED LOOP ADVANTAGE

When business partners Richard Kughn, Ron Fox and John McCarthy decided to convert the historic Whitney Mansion into a world-class restaurant, they faced a major problem: how to install a heating and cooling system without disturbing the original architectural character of the building.

The answer was the Closed Loop System. With this system, there was no need to penetrate the ornately paneled walls for additional pipes. There was also no need to tear into the decorative ceiling to create space for ductwork. Plus, floor space was better utilized because this system does not require a large mechanical room like other central systems.

But beyond the immediate advantage of being unobtrusive, the Closed Loop System offered other benefits. One of the most important was the ability to heat or cool each dining area independently—almost like having a separate system for each room. Another advantage was substantial savings in installation and operation of the system.

Of course, retrofitting is only one of the many applications for which the Closed Loop System is ideal. You can learn all about them in a brief videocassette featuring several building owners, developers and architects. They'll tell you how they use the system and give their candid comments on its effectiveness.

Just call (313) 237-9222 or 237-9211 and ask one of Detroit Edison's professional consultants about the Closed Loop Advantage.

Detroit Edison

A good part of your life.

TIME IS MONEY AND TIMING IS EVERYTHING

Were your funds moved out of equities prior to Black Monday, October 19, 1987?

Do you want to improve your investment performance by strategically moving your funds into the stock market when it is undervalued, and out of the stock market when it is overvalued?

Do you want the peace of mind of professional money management?

INVESTMENT TIMING CONSULTANTS, INC.

(ITC) is a discretionary investment management service structured to meet the needs of corporate pension and profit sharing plans, institutions, and individuals. ITC utilizes a proprietary timing program that has been able to perceive MAJOR advances and declines in the stock market.

INVESTMENT OBJECTIVE

ITC has two main objectives:

Capital Preservation - when equity and/or fixed income markets are declining.
Capital Growth - when equity and/or fixed income markets are rising

INVESTMENT STRATEGY

The price movements of stocks and bonds have become increasingly more volatile as illustrated by 508 point decline on October 19, 1987.
Determining the overall trend of of the stock market is vital.
Flexibility is an important ingredient in investment success. There are distinct times when market conditions dictate a liquid posture. In these periods a defensive move out of the stock market and into money market funds or fixed income securities is important to preserve capital.

PHILOSOPHY

The primary objective of ITC is to achieve rates of return that are in excess of inflation to preserve the purchasing power of the assets that we manage.

ABOUT INVESTMENT TIMING CONSULTANTS INC.

The concept of timing has used for years by large institutions such as, banks and insurance companies to increase the return on their portfolios.
ITC makes this service available to you, the individual investor.
ITC utilizes a proprietary timing model to identify major capital market tops and bottoms.
ITC makes all the timing moves. You do not have to watch the market. It is done for you by experts.
ITC's sole income is dervied from management fees, there is no conflict of interest.
ITC is registered with the U.S. Securities and Exchange Commission under the Investment Advisors Act of 1940.

ITC holds no client funds or securities. All assets are held on deposit at the fund of the investor's choice.
ITC clients continue to receive all confirmations and statements from the fund directly.
You may cancel ITC's management within 5 days by written notice to INVESTMENT TIMING CONSULTANTS, INC. unconditionally.

SUMMARY

INVESTMENT TIMING CONSULTANTS, INC. provides a means to participate in equities on a systematic basis with clearly defined risk parameters. Although ITC cannot predict future performance, ITC, nonetheless, is confident that the same basic investment philosophy that has proved successful over the years will continue to produce results consistent with clients' objectives.

ITC

INVESTMENT TIMING CONSULTANTS, INC.

25899 WEST 12 MILE ROAD
SUITE 350
SOUTHFIELD, MICHIGAN 48034
(313) 358-1980 □ (800) 666-5050

American Society of Engineers from India
1988 National Convention

11:30 a.m. **Registration - Hubbard Foyer**

Afternoon Sessions

12:30 p.m. **Plenary Session: Striving for Excellence - Dr. Bruno O. Weinschel**

1:45 p.m. **Three Concurrent Sessions:**

Session A Hubbard A	**Session B** Hubbard B	**Session C** Conference Room A
Technology Transfer Chairman: Dr. Prakash C. Shrivastava	**Marketing for Success** Chairman: Mr. Arun S. Vijan	**Entering Job Market** Chairman: Dr. Snehmay Khasnabis
Technology Needs in India: What, Where and How? Dr. S. S. Mathur	**Self Assessment** Mr. Mukul M. Mehta	**Job Search** Mr. Roger A. Jackson
Manufacturing Opportunities for NRI's Mr. C. K. Sharma	**Sharpening Your Skills** Dr. S. Ramamurthy	**Immigration** Mr. George P. Mann
American Perspective on Doing Business with/in India: Case Studies Dr. Gajanan Sabnis and Mr. Jagdish Vasa	**Mentoring** Dr. S. M. Shahed	**Corporate Etiquette** Mr. Dinesh Bhatt **Career Path Selection** Mr. Edward G. Milligan

Evening Banquet

5:30 p.m. **Social Hour**

6:45 p.m. **Dinner**

Master of Ceremonies	- Mr. Jehangir Mistry
Welcome	- Mr. Veni Rao
President's Report	- Mr. Nirdosh Reddy
Address & Awards	- Dr. P Ranganath Nayak
Closing Remarks	- Mr. Noor Kapadia

9:30 p.m. **Entertainment**

Introduction	- Mr. Ramesh Mangrulkar
Concert	- Musical performance on flute by Pandit Hariprasad Chaurasia, accompanied on tabla by Sabir Khan

American Society of Engineers from India
1988 National Convention

Chief Guest
Dr. P. R. Nayak

Dr. P. Ranganath Nayak is Vice President in charge of Arthur D. Little's Operations Management consulting practice. He has over 20 years of experience in research, development, manufacturing and consulting.

Among Dr. Nayak's recent consulting assignments are the following:

- Audit of the manufacturing processes, equipment, and layout for a high-volume manufacturer of shaving blades and cartridges.
- Participation in the development of CAD/CAM/CAE/CIM strategy for a U.S. automotive company, with specific emphasis on the transformation of CAD/CAM technology from an experimental one to one that is routinely used in the product development process to reduce lead time, reduce development costs, and improve quality at job 1.
- Analysis of manufacturing productivity for a major US automobile manufacturer, with a particular emphasis on how Engineering Change Orders affect the learning curve.
- Development of a technology plan to reduce product development lead time for the sheet metal components of an automobile.

Dr. Nayak has conducted numerous studies of mechanical and electromechanical equipment, employing tools such as Reliability Risk Analysis and Fault Tree Analysis. He has also applied Fault Tree Analysis techniques to the study of organizational failure.

Research for his book on remarkable product and service innovation of the last 15 years, titled **Breakthroughs!**, (published in October 1986), took Dr. Nayak to the factories of Sony and Toyota, where he examined the Product Development and Productivity Improvement practices.

Before joining Arthur D. Little, Inc., Dr. Nayak worked for several years at the Tata Engineering and Locomotive Company, Limited (TELCO), India's largest automotive manufacturer. The company had, for many years, a technical collaboration with Daimler Benz of West Germany. At TELCO, Dr. Nayak was involved in transmission design, over-the-road testing of vehicles, quality acceptance testing of machine tools, and then the installation of mass production lines for diesel engines. While at TELCO, he wrote a manual of Automotive Gear Design and developed Sudden Death testing procedures based on the Weibull probability distribution.

Dr. Nayak received a Ph.D. in Mechanical Engineering from the Massachusetts Institute of Technology.

American Society of Engineers from India
1988 National Convention

Engineering Excellence Award

Dr. C. Kumar N. Patel is Executive Director, Research, Materials Science, Engineering and Academic Affairs Division at AT&T Bell Laboratories, Murray Hill, New Jersey. He joined Bell Laboratories in 1961 where he began his career by carrying out research in the field of gas lasers. He has made numerous seminal contributions in several fields, including gas lasers, nonlinear optics, molecular spectroscopy, pollution detection, and laser surgery.

In 1963 he discovered the laser action on the vibrational-rotational transitions of carbon dioxide. This discovery and his invention of efficient vibrational energy transfer between molecules, in 1964, led to his series of experiments which demonstrated that the cabon dioxide laser was capable of very high cw and pulsed power output at very high conversion efficiencies. The carbon dioxide lasers have now become work horses in at least four major fields of applications of lasers. These are: (1) Industrial applications which include cutting, drilling, and welding; (2) Scientific applications which include spectroscopy, nonlinear optics, and optical pumping to create newer lasers such as far infrared and X-ray lasers; (3) Medical applications which include laser surgery in the areas of otolaryngology, gynecology, tumor removal, and general surgery; and (4) Remote probing applications which, among others, include pollution detection, ranging and Doppler radar, as well as a multitude of military uses. No other laser has made a greater impact on the society than the carbon dioxide laser. His discovery of laser action on vibrational-rotational transitions of molecules has directly led to many other infrared high power laser systems.

Dr. Patel's current research interests include spectroscopy of highly transparent liquids and solids, and medical applications of carbon dioxide lasers.

Son of a Civil Engineer in India, Dr. Patel received his B.E. in Telecommunications from the College of Engineering in Poona, India. He received his M.S. and Ph.D. in Electrical Engineering from Stanford University in 1959 and 1961, respectively. In 1988 he was awarded honorary Doctor of Science degree from the New Jersey Institute of Technology.

At Bell Laboratories in 1967 he became head of the Infrared Physics and Electronics Research Department and in 1970 he assumed the position of the Director of the Electronics Research Laboratory. In 1976 he became Director of the Physical Research Laboratory. In 1981 he became Executive Director, Research, Physics and Academic Affairs Division. He assumed his present position in 1987. Since his election in 1979 he has served as a member of the Board of Trustees of the Aerospace Corporation, El Segundo, California. In January 1986, he was elected to the Board of Directors of the Newport Corporation, Fountain Valley, California.

For his discovery of the laser action on the vibrational-rotational transitions of molecules, for his invention of the high power corbon dioxide lasers, for his nonlinear optical studies leading to the invention of the spin flip Raman lasers and for molecular spectroscopy and pollution detection studies, Dr. Patel has received numerous honors. These include the Optical Society of America's Adolph Lomb Medal (1966); the Franklin Institute's Stuart Ballantine Medal (1968); Coblentz Society's (of the American Chemical Society) Coblentz Prize (1974); the Association of Indians in America's Honor Award (1975); the Institute of Electrical and Electronic Engineer's Lamme Medal (1976); National Academy of Engineerring's Zworykin Award (1976); Texas Instrument Foundation's Founder Prize (1978); the Optical Society of America's Townes Medal (1982); the Society of Applied Spectroscopy's N.Y. Section Award (1982); the Schawlow Award of the Laser Institute of America (1984); the New Jersey Governor's Thomas Alva Edison Science Award (1987); and the George E. Pake Prize of the American Physical Society (1988).

Dr. Patel is a member of the National Academy of Sciences and the National Academy of Engineering. He is a Foreign Fellow of the Indian Science Academy and the Institution of Electronics and Telecommunication Engineers (India). He is an Associate Fellow of the Third World Academy of Sciences. He is a fellow of the Institute of Electrical and Electronic Engineers, the American Physical Society, the Optical Society of America, the American Academy of Arts and Sciences, and the Association for Advancement of Arts and Sciences. In 1980 Dr. Patel was elected an Honorary Member of the Gynecologic Laser Surgery Society, and in 1985 he was elected an Honorary Member of the American Society for Laser Medicine and Surgery.

American Society of Engineers from India
1988 National Convention

Managerial Excellence Award

As a Manager of Quality Assurance for General Dynamic Land Systems Division, **Mr. Jag "Bushan" Kaul** is responsible for the total plant quality program for Detroit Arsenal Tank Plant. According to one of the Vice Presidents of General Dynamics

> "Mr. Kaul's management style has allowed General Dynamics to realize multi-year savings in excess of $34 million, while maintaining operational readiness rate of over 94% .... He has created a strong team environment through motivation and effective communication so that his division's Operation Plan commitments are continuously exceeded."

Mr. Kaul has a BSME and MBA degrees from the University of Scranton, Pennsylvania. He is a member of numerous professional and technical societies.

Outstanding Student Award

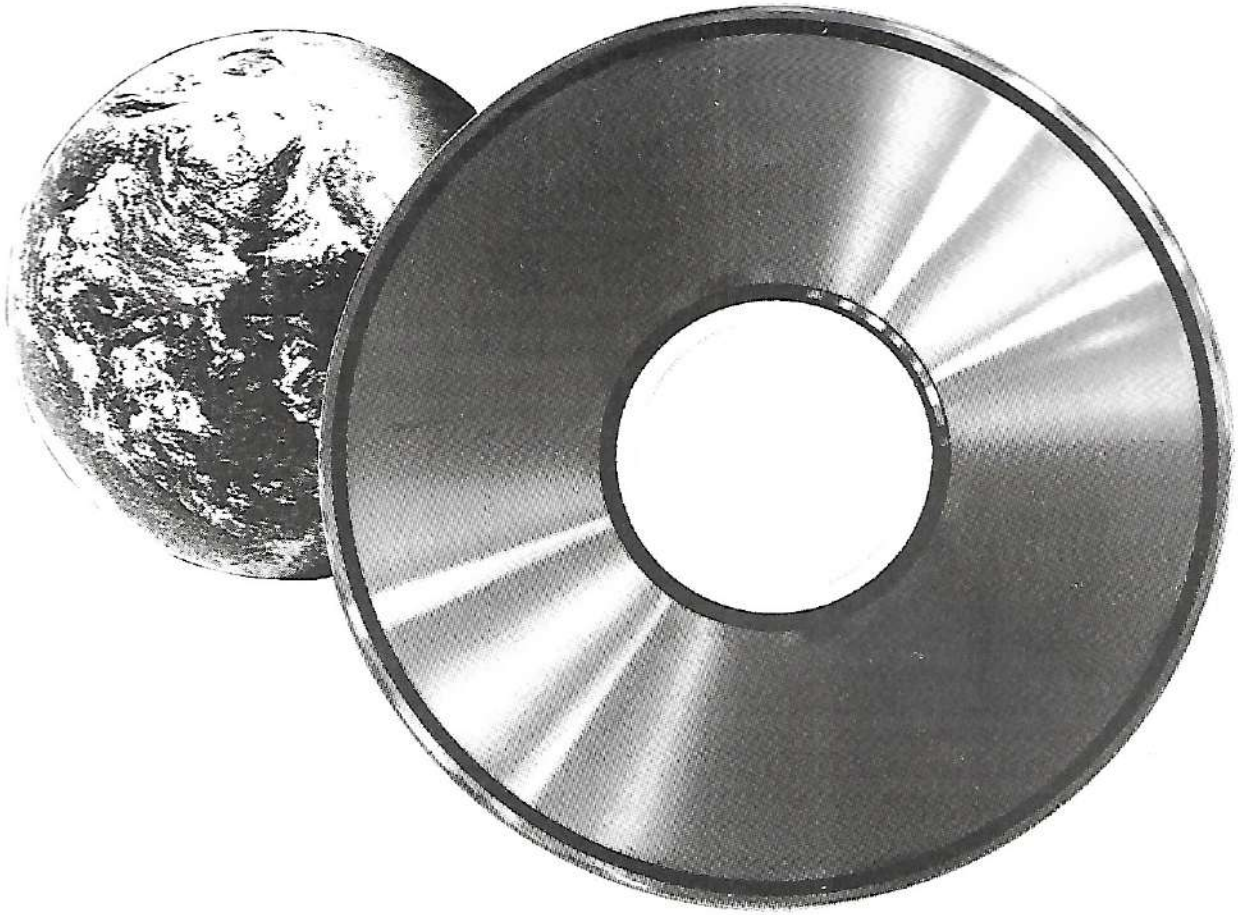
Utpal Roy is currently completing a Ph.D. degree at the Purdue University, Indiana. His research interests include Solid Modeling and Computer Integrated Design & Manufacturing. He received his M.S. degree in Mechanical Engineering from Marquette University, Wisconsin in 1983 and his B.E. degree in Mechanical Engineering from the Jadavpur University, Calcutta, India in 1978. He was highly recommended by the faculty for this award. His accomplishments include:

- Three University Gold Medals, and one Silver Medal, on the basis of best performances in undergraduate studies.
- NATIONAL SCIENCE TALENT SEARCH (N.S.T.S.) - scholarship, Awarded by Govt. of India, (1973).
- Served as the technical paper reviewer for "Computer Aided Design (CAD)" - an International Journal, and "Integrated and Intelligent Manufacturing (ASME)".
- Already published 6 papers including one in the "Robotics and Computer Integrated Manufacturing", an international journal.

Outstanding Community Service Award

Started in 1974, **India Development Services** is an organization with the aim aiding integrated rural development. In addition to providing financial support, the organization also provides technical help to make both projects and people, self sufficient in rural India. India Development Services has currently over 1000 members in the U.S.A. With a budget of over $40,000, it is sponsoring twelve different projects in several states in India. One of the typical projects is a cooperative of women in a village organized to sell milk on a collective basis. This cooperative is now run and managed exclusively by the women of the village. India Development Services holds monthly seminars in Chicago area. Dr. Meenal Mamdani is the current President of India Development Services.

ASEI solicits nominations for awards on an on-going basis. Nominations may be sent to: Dr. S. M. Shahed, 4212 Waterbrook Way, Greenwood, IN 46143.



A GLOBAL NETWORK MEANS GLOBAL COMMITMENT.

QUALITY-

SERVICE-

PRICE-

DISCTRONICS MFG, INC.
MANUFACTURER OF COMPACT DISCS
RAM REDDY NOMULA, PRESIDENT
FOR INFORMATION: DISCTRONICS - 4905 MOORES MILL ROAD HUNTSVILLE , ALABAMA
(205) 859 - 9042 / FAX (205) 859 - 9932

PANDIT HARIPRASAD CHAURASIA

Pandit Hariprasad Chaurasia not only occupies a unique place in India as the country's top ranking flutist, but he is acclaimed worldover for his mastery of the melodious wind instrument. Attracted by the lure of classical music from his childhood, he trained rigorously for several years under Pandit Bholanath. Later he received invaluable guidance from Smt. Annapurna Devi, the brilliant daughter of the greatest musician India has produced in this century, the late Ustad Allauddin Khan. In the dexterous hand of Pandit Chaurasia, the flute emerges from its pastoral background to express nuances of classical music with unsurpassed elegance. His rendering of classical music is unusually imaginative and is characterized by a complete command over *"layakari"*, the rhythmic structure of music. Pandit Chaurasia has travelled and performed internationaly in many concerts and music festivals. He has several L.P.s and C.D.s to his credit and in colaboration with Pandit Shivkumar Sharma (*"Shiv-Hari"*) has composed music for many films. In recognition of his outstanding contributions in music, in 1984, the *Sangit Natak Academy* (i.e. the Indian Academy of Music, Dance and Drama) presented its National Award to him.

THE INDIAN FLUTE

Unlike its counterparts in the Western world, the Indian flute is an unpretentious, unsophisticated bamboo reed. Made out of "hollowed out bamboo", this legendary instrument is reputed to have been played by the divine Lord Krishna. Originally a folk instrument, it has now evolved into an effective medium for expressing the subtle nuances of Indian classical music. Having carried out extensive research in the blowing technique and the manupulation of fingers, Pandit Hariparasad can produce incredible melodious of etheral beauty.

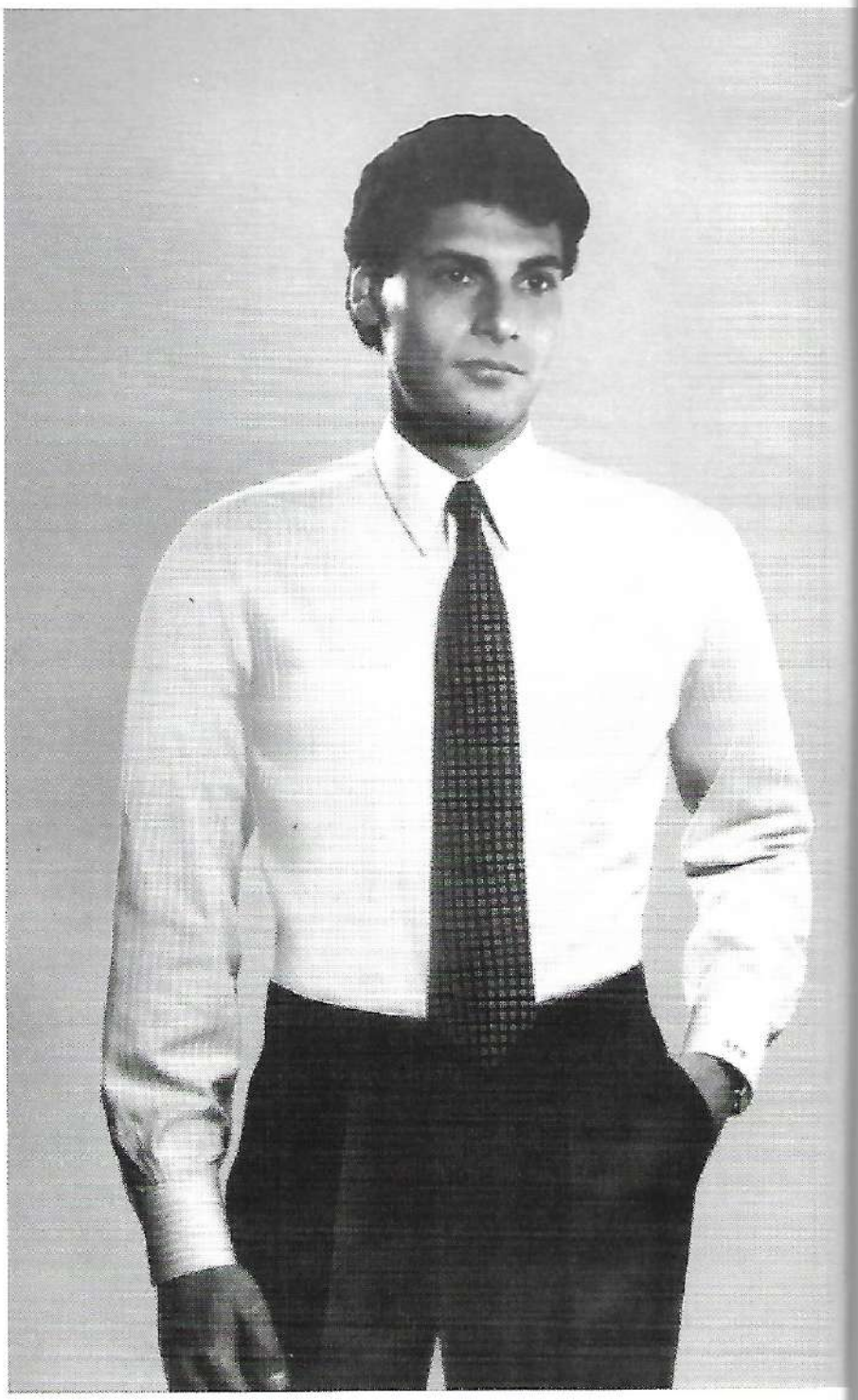
SABIR KHAN

In spite of his young age, **Sabir Khan** is recognized as one of the top tabla players in India today. He belongs to the Farukhabad gharana (i.e. school) which is known for its traditional technical approach to tabla playing. Sabir received his initial training from his grandfather, Ustad Masit Khan. However, his principal teacher was his father, ustad Keramtullah Khan, one of the most celebrated tabla players of this century. Sabir has accompanied nearly every top musician of India and has travelled widely in Europe, Soviet Union, and other Western and Easter european countries, the middle east, Japan and Australia with artists such as Ustad Amjad Ali Khan and Pandit Hariparasad Chaurasia. Sabir will be on his first tour of U.S.A. and Canada and will perform in over twenty cities.

We'll sew for you one custom-made shirt FREE

With this ad only you will receive 5 custom-tailored shirts for the price of 4. Shirts priced from $37.

A custom-tailored shirt fits better – feels better – and looks better. Duru's Custom Tailors make shirts from the finest fabrics in a wide variety of styles to choose from, made to fit your measurements exactly.



Holiday Gift Certificates now available.

Troy, MI
Somerset Mall
Big Beaver • 48084
313/643-4626
Mon., Thurs., Fri. 10:00 - 9:00
Tues., Wed., Sat. 10:00 - 6:00
Sun. 12:00 - 5:00

Birmingham, MI
4087 Maple Rd.
(S.E. corner of
Telegraph)
313/642-6662
Mon. - Sat. 10:00 - 6:00

DURU'S®
custom shirts & suits

A $46. Value FREE!

With this ad only.
Offer expires 12/30/88.

SESSION B: MARKETING FOR SUCCESS

CHAIRMAN: ARUN S. VIJAN

Technical competence is a necessary but not sufficient reason for career advancement. Most engineers have a clear understanding of the technical requirements of their jobs. However, relatively few have a definite grasp of the "soft" or the subjective factors which may be equally important in deciding who gets ahead. Some of these factors have been variously described as attributes, attitudes, demeanor, teamwork, planning, leading and managing, personality, handling pressure, etc. Experts on Management Theory, Organizational Behavior and relative fields have studied and analyzed many of these factors. They tend to include psychological, cultural and human behavior sciences in their analysis. For immigrants like us, several additional factors enter the picture. These could be language/accent, social mannerisms, type of relationships with peers, superiors or subordinates, cultural and racial stereotypes, etc. The list is a long one, even more so for non-European immigrants.

In todays session, we will discuss some aspects of this complex subject. While there are not hard and fast rules, we must realize some tendencies and facts of life and learn how to handle them and benefit from them. We hope that the three speakers and panel members will be helpful in getting each of us to analyze ourselves, improve ourselves and in the process, benefit ourselves as well as the companies we work for.

Arun Vijan obtained the B.Tech. degree from I.I.T.-Bombay, M.S. degree from University of Detroit, and MBA degree from Wayne State university. He has held several positions at Rockwell International, which include Regional Sales Manager, Manager of Business Planning and Engineering Supervisor. Currently, he is the Director - Business Development of Rockwell International, Troy Michigan.

B-1: MARKETING FOR SUCCESS

SELF ASSESSMENT

MUKUL M. MEHTA

To go from location A to location B, a person needs the knowledge of where he is, where he want to go and a good road map. A successful career builder periodically undertakes self assessment to determine where he is, what his strengths and weaknesses are and develop a suitable navigation plan.

A study done by the University of Chicago had revealed that 15% of an individual's success is determined by his vocational and technical skills and 85% by his abilities to work with people.

Many techniques can be used for effective self assessment. These include:

- aptitude tests
- inputs from friends, colleagues, mentor and a spouse
- formal and informal performance appraisals
- psychological testing and
- self analysis

Aptitude tests are quick, objective, scientific, inexpensive and most useful in narrowing down career choices.

Honest, objective and well thought out inputs from friends, colleagues, mentor, spouse or supervisors are very difficult to obtain, but can do wonders in assisting one in self assessment. Take time, confide, ask a person you respect for help and listen carefully. Avoid all temptations to argue and defend your position. Just listen.

Many companies provide psychological testing with assistance from specialized testing services. Some of these are clinically oriented, you want one that specializes in supervisory, managerial or leadership skills assessment.

Self assessment can be done in many areas:

- technical skills
- clothing
- communication skills (speaking and writing)
- managerial skills
- leadership skills
- personality and
- social style

John T. Molloy in Dress for Success book shares his research findings on how senior executives relate to clothing and helps you assess your wardrobe and more importantly the first impression you

create. He will tell you why men dress for failure, what works and does not work and what to do about it. For example, long hair, moustache, bright or fancy clothing and jewelry work well only in evenings and with women. In most corporate settings they are inappropriate.

Assessing communication skills is easy, improving them takes considerable effort. Prepare a ten minute speech on your favorite subject. Give it to your spouse or a friend and ask them to turn on a cassette recorder. Have your friend/spouse make a tally of: errors in grammar, skipped articles, enunciation - v and w, this and these etc., incomplete sentences, unnecessary use of "and" and a sentence connector, ah... etc., and sounds uttered when you are thinking. How are your hand and body gestures. Are you nervous? Is your voice crisp and clear? Is it monotone or varied? Does your voice frequently fade at the tail end of a word or sentence? How is your speech received? Is there a clear beginning and ending? Can the listener convey the message in simple terms? Find a Toastmasters Club in your area. It is very inexpensive and can do wonders for your verbal communication skills and confidence.

To assess managerial and leadership skills, one needs to develop an awareness and understanding of key concepts from behavioral science, psychology and management theories. Maslow's hierarchy of needs, McGregor's theory X and Y, Herzberg's theory on motivation, Mouton's managerial grid, Merril's concept of social style and Johari Window are pertinent. Each concept provides a different perspective and some a sliding scale to assess one's skills. Many of these theorists' also share their research findings on what characteristics lead to success. The presentation will cover these concepts in detail. The Effective Entrepreneur - C. Swayne and W. Tucker, Personal Styles and Effective Performance - D. W. Merrill and R. H. Reid are worth reading.

None of these methods assess the inner person "me". Why I behave the way I do and why I find it so difficult to change and develop winning behavior? Choosing Success - Transactional Analysis on the Job by D. Jongeward and P. Seyer will help you assess your personality, habits and work patterns from a psychological perspective and help you develop effective alternatives.

Mukul Mehta obtained B. Chem. Eng. Degree from Department of Chemical Technology, University of Bombay, M.S. in Chemical Engineering and M.S. in Statistics from the Ohio State University. He worked for three years as an independent consultant in Bombay, India, before joining BF Goodrich Company as an R&D Statistician in 1977. Since then he has held various positions including Supervisor, Manufacturing Statistical Support and Manager New Process Evaluation. Currently, he is Manager of Statistics and Computer Aided Research.

B-2: MARKETING FOR SUCCESS

SHARPENING YOUR SKILLS

Dr. SUBRAMANIAN (RAM) RAMAMURTHY

Sometime or other, many of us might have wondered: 'How come I am not being promoted? I work so hard and have given the company or the boss what they wanted. The other guy only talks to the boss and gets promoted.' There is a positive aspect to this pondering that you want to succeed.

Yes! This talk will penetrate into your valid pondering and present some food for thought so that you can work at these ideas to your drive to success. Yes! It is important, ... who you know, but in this competitive world, your boss is not going to promote the other guy unless the other guy presents what is relevant to the advantages of the company. The most relevant aspects of what you present, and the importance of sharpening your skills will be brought out.

Regardless of context, however, there are elements one should attend to, to market your self to succeed. These elements include, but not limited to: Objectivity, Needs, Goal Setting, Communications, Public Relations, Persistence, and Meeting the Goals. This talk will focus on these elements with we engineers in mind.

Dr. Ramamurthy, a Ph.D. from Cornell, founded Optimum Management Inc., an Engineering and Management Consulting firm. Before that he was a lead engineer for Stone and Webster Engineering Corporation managing a large group of mechanical and structural engineers. He is an award winning author and advisor of award winning subjects. He has published papers related to computer data, optimization, and dynamics in national journals and has held positions in various national engineering societies. Recently, his articles on Business Planning were published in publications of chambers of commerce and Engineering Society of Detroit. His present consulting assignments include Business Planning for such reputed firms as SDRC. He is a member of ASCE, ASME, SIGMA XI, TAU Beta PI and CHI EPSILON.

B-3: MARKETING FOR SUCCESS

MENTORING

S. M. SHAHED

One model of career development considers four stages of career growth. This model is useful because it is devoid of specific considerations of organizational titles and positions and considers the essence of career development. The four stages of growth and the work content in each are as follows:

Career Stage	Work Content
Apprentice	Learning, following directions executing detailed work
Independent Specialist	Independent work, visible technical contribution, technical credibility, manage own work
Mentor	Teach, develop breadth, develop people, outside contacts
Sponsor	Organizational direction, sponsor key people, strategic outside contacts

I will use the framework of this model to describe how the work of a person (an engineer, in this instance) progresses from stage to stage. I will discuss the organizational and personal barriers to growth at each stage.

The bulk of the discussion will center around 'Mentorship'. This discussion will be both from the point of view of the mentor and from the point of view of the person seeking a mentor.

The questions to consider for an individual in the beginning stages of career development are:

- what are the barriers to growth that are generally faced by anyone in this situation
- what are the barriers to growth, both personal and institutional, faced specifically by member of an immigrant minority community seeking to develop his/her career
- in what ways can a mentor help overcome these barriers
- how can a person go about selecting a mentor

The question to consider for an individual in the mentorship/ sponsorship stage of career development are:

- why should I be a mentor?
- are the special problems of the immigrant minority community enough to warrant a "special" consideration of mentorship
- what are the ethical considerations in being a mentor
- how can I be a mentor

I believe that there are special considerations for the immigrant community. It is well served by consciously seeking out a mentor. It is well served by carefully considering the ethical aspects of mentorship and within the latitude provided by such aspects, it is right and appropriate to help each other remove personal and organizational barriers to career development.

S. M. Shahed is the Executive Director of Design and Analysis at Cummins Engine Company. Since 1971, he has held several positions at this firm -- some of which include Director of Performance and Combustion Technology, and Executive Engineer of Hi HP Projects. Dr. Shahed is a recipient of several awards from S.A.E. He is a member of the Industrial Advisory Committee of Michigan Technological University, S.A.E., and A.S.M.E. He was on the faculty of University of California, Berkeley, and Osmania University, Hyderabad. Dr. Shahed received the Ph.D. and M.S. degrees in Mechanical Engineering from University of Wisconsin and the B.E. degree from Osmania University. He also attended the Sloan School of Management Program for Senior Executives at MIT.

SESSION B: MARKETING FOR SUCCESS

PANELIST: SAMUEL M. RUSSO

Samuel M. Russo is the Principal Officer of Simco Resources Inc., a prominent Executive Search firm specializing in the recruitment of Engineering, Manufacturing and Scientific executive positions. He holds a B.S. degree in Economics from Niagra University. He was an early consultant, lecturer, and educator on business uses of the digital computer, dating from the days of the Univac I. He was also a pioneer in the use of computers in manufacturing and process control. Since 1976 he has worked exclusively in the recruiting and career counseling field.

SESSION C: ENTERING THE JOB MARKET

CHAIRMAN: SNEHAMAY KHASNABIS

The employment outlook for engineers and technologists in the U.S. is promising. A recent estimate by the Bureau of Labor Statistics places the demand for these professionals to go up 30% by the turn of the century. As the country overhauls its industrial base, the need for engineers, scientists and computer specialists, as the key players to put the emerging technologies to practical application, will go up.

While the employment prospects look optimistic, new engineering graduates, particularly those who are foreign born, are often faced with the dilemma in their job search process. Typical questions raised in their minds are:

How do I start looking for employment oppertunities?

How do I make myself marketable to the industry?

Is my current visa status an impediment? If so, what can I do about this?

The American Society of Engineers from India is pleased to sponsor this seminar that is directed toward the needs of this target group: engineers who are expected to graduate soon, as well as who have been in the profession for a number of years and are striving for further prefessional advancement. Specific topics to be discussed in this seminar are: The Job Search Process and the changing profile of the Engineer, Trend Toward Global Economy and the Emerging Industry Needs, The Interface Between Managerial and Technical Functions, Changing Immigration Laws in Response to Economic Conditions and Cultural Adjustments Needed to Interact with American Engineers.

This seminar, thus, promises to be informative, stimulating and responsive to the emerging needs of our young engineers. It may not provide all the answers, but it most certainly will help our young colleagues set specific directions toward the advancement of their professional careers.

Dr. Snehamay Khasnabis, Professor, Department of Civil Engineering, Wayne State University, Detroit, specializes in the area of transportation engineering. He obtained a Bachelor's degree from the University of Calcutta (1962), and Master's and Ph.D. degrees in Civil Engineering from North Carolina State University (1970 and 1973). He has conducted research in the areas of highway safety, transportation systems and logistics and extensively published his work in various journals. He is a member of Professional and Honor Societies, Including ASCE, ESD, ASIE, Tau Beta Pi,Sigma Xi, and is a registered professional engineer in the state of Michigan Dr.Khasnabis served as the chairman, Department of Civil Engineering between 1983 and 1987 and is currently also the Acting Director, Urban Transportation Institute, Wayne State University.

C-1: ENTERING THE JOB MARKET

JOB SEARCH

ROGER A. JACKSON

Recent studies indicate that enough opportunities will be available to engineers between now and the end of the century, and particularly, to engineers with different ethnic backgrounds due to the shortfall from the traditional recruting sources. Engineers and managers must, however, be aware of the dichotomy of the need for scarce resources contrasted with the increasing global competition and the need to control costs. In any case, engineers will be increasingly in demand and therefore increasingly valued. Industries will also be looking for managerials skills among engineers - this interface will very definitely call for a changing profile of today's engineer. Tomorrrow's engineers must not only be technical experts, but also be competent in interacting with others. Engineers must also "keep current" and be prepare for changing as we move toward the year 2000. Other issues to be discussed in this presentation are: methods of searching out an alternative job oppertunity in terms of targeting the preferred industry ingredients of an effective resume, the interview process, and the criteria a young engineer might wish to adopt in looking at a "salary/career plan trade-off."

Roger Jackson is vice president of human resources and government relations for Rockwell International Corporation's Automotive Operations. He joined Rockwell in 1977 as a manager of European personnel for the company's Automotive Operations, located in Birmingham, England. In 1978, he was transferred to Automotive headquarters and held the positions of supervisor of compensation, manager of compensation, and manager of international personnel planning.

In 1981, Jackson was named director of personnel for Rockwell for CVC, and axle manufacturing facility in Cameri, Italy. His most recent assignment was in London, England, where he served as director of human resources - Europe, since 1985, for Automotive's European facilities. Prior to joining Rockwell, Jackson held personnel management positions with Ford MotorCompany and British Leyland Inc., both located in the United Kingdom. He received a bachelor's degree in sociology and political science from the University of Sussex in Brighton, England.

C-2: ENTERING THE JOB MARKET

IMMIGRATION

GEORGE MANN

U.S. Immigration law is undergoing changes in response to economic conditions and other factors, and new legislation is now pending which substantially affect those seeking visas for the United States.

Following is a brief overview which can only serve as a starting point, not as a substitute for expert advice.

TYPES OF VISAS

There are two major classifications for visas:

1) NON-IMMIGRANT VISAS - for temporary stay.
2) IMMIGRANT VISAS - for permanent stay.

A non-immgrant is an alien who seeks to come to United States for a temporary period or purpose.

In general, after the admission to United States , the non- immigrant is to remain upon following general conditions:

a) He will maintain the non -immigrant status under which he was admitted or which he subsequently may have been accorded.

b) He will depart from the United States within the period of his admission or of any authorized extension.

c) He will not engage in activities in the United States inconsistent with his status.

It should be noted however that non-immigrant lawfully in the United States may apply for immigration status.

IMPORTANT NOTE: Unlike immigrant visas, there are no numerical limits and therefore no waiting period for obtaining non-immigrant visas.

INTRA-COMPANY TRANSFEREE VISAS (L-1)

The following procedure must be followed to accomplish the admission of an employee in the "L" classification.

a) The company must submit an I-129L petition form to the U.S. INS.

b) The petition, when approved, will be forwarded to the United States Consulate. The alien will then need to apply at the Consulate for an "L" non-immigrant visas. If already in the United States, the applicant can apply for a change of status from vistor or student to L-1.

H-1 VISA

The H-1 visa is the best temporary solution for those "professionals" who have job offers. The employer must file an I-129b petition form with supporting documentation. Otherwise, the procedure is the same as for L-1 Visa.

IMMIGRANT VISAS

There are three basic ways in which an alien may qualify for an immigrant visa and thus become a permanent resident:

1) Through relationship with a citizen or permanent resident of the United States.

2) Through an occupation or business.

3) As a refugee.

NON-QUOTA IMMIGRANTS

The following categories of aliens may enter as immigrants without limited to number admitted.

a) Spouses, children and parents of united States Citizens. A child must be under 21 and unmarried, with certain limitations. A parent of a U.S. citizen qualifies for an immigrant visa only if his citizen child is 21 years of age or older.

b) Returning lawful permanent residents, specified former citizens of the U.S. , certain aliens employed or formerly employed by U.S. government, and occasional other designated groups.

QUOTA IMMIGRANTS

All other aliens who seek to enter the United States as immigrants are subject to the quotas.

A quota has been fixed for aliens from all countries. The quotas are divided into different categories. Each category is given a fixed percentage of the quota and is assigned an order of preference. In order of preference, these categories are:

First Preference: Unmarried adult sons and daughters of United States citizens.

Second Preference: Spouses and unmarried sons and daughters of aliens who have been lawfully admitted to the U.S. as permanent residents.

Third Preference: "Members of the professions" or aliens who, " because of their exceptional ability in the sciences or arts," will benefit the United States.

Fourth Preference: Married sons and daughters of U.S. citizens.

Fifth Preference: Brothers and sisters of adult U.S. citizens

Sixth Preference: Immigrants who " are capable of performing specific skilled labor" for which there is a shortage of employable persons in the United States.

George P. Mann is an attorney and counselor specializing in the immigration and nationality law. He received the J.D. degree from the Detroit College of Law in 1975 and has been in private practice since that year. His undergraduate degree was in Industrial Engineering from Wayne State University. Mr. Mann is a member of the state Bar of Michigan, has served as legal instructor at Criminal Justice Institute in Detroit. He is fluent in five foreign languages. His office is located in Oakpark, Michigan.

C-3: ENTERING THE JOB MARKET

CORPORATE ETIQUETTE

DINESH BHATT

It is commonly acknowledged that a vast majority of people arriving from India into this great country, USA, have the potential to be successful. They have education, drive and dedication. Unfortunately, a good number of them are unable to meet their goals due to, it seems, an invisible barrier of corporate etiquette. In fact, corporate etiquette is one of the critical factors in anybody's success. However, due to the wide disparity in the culture of USA and India, corporate etiquette becomes even more critical for people from India. Learning corporate etiquette must become a high priority.

DRESS/APPEARANCE

- Conservative versus casual
- Corporate culture
- Managerial style

COMMUNICATION/INTERACTION

- With supervisor, senior management, colleagues, and co-workers from other areas of the company. Concept of organizational matrix
- Telephone etiquette
- Body language
- Art of effective listening

MEETINGS

- Participation and contribution at intra and inter-departmental meetings

NETWORKING

- Through hobbies and interests
- Through lunches and dinners
- Through professional affiliations

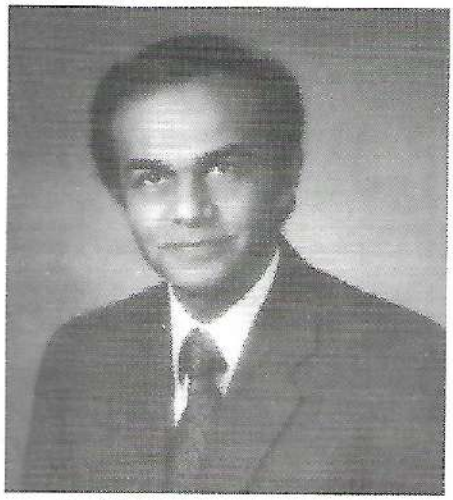
SOCIALING AT WORK PLACE

- Dealing with controversial subjects
- Office parties and picnics

TERMINATION/TRANSFER

- Constructive way of handling termination

CONCLUSION



Mr. Dinesh Bhatt is Second Vice President in Financial Controls at the National Bank of Detroit. Prior to assuming his current responsibility, Mr. Bhatt worked in a similar capacity at Michigan National Bank and Louisiana National Bank.

Mr. Bhatt has been a frequent speaker at the National Association for Bank Cost and Management Accounting (NABCMA), and Banking Administration Institute (BAI) conferences. He actively participated in community and alumni affairs. Mr. Bhatt has served on BAI Program Committee (Productivity), University of Detroit Conference Committee, and Bhartiya Temple Cultural Committee. He received his M.B.A. from the University of Detroit.

C-4: ENTERING THE JOB MARKET

CAREER PATH SELECTION

EDWARD G. MILLIGAN

A technical management position in today's industry requires the ability to direct others, as well a competence to physically participate in the project. In selecting specific career paths, engineers should be aware of the fact that certain positions are more `indespensible' than others, and these are the jobs that Management keeps when reducing headcount. Further, a prospective supervisor will be motivated to hire an individual if he believes that the candidate has a track record as a winner and that he will make supervisor's job easier.

The United States needs world class manufacturing quality, reliability and durability. This is where the immediate future is. In the Detroit area this year the activity appears to be in plastics and stampings. Lastly, one should not overlook new opportunities for engineers in sales. This field can yield the highest financial reward.

Edward Milligan holds a B.S. degree in Physics and Mathematics from Wayne State University and a M.S. in Engineering Mechanics from the University of Illinois. He was supervisor of Advanced Body Structures, Electrical and Materials Applications Group for Ford Motor Company and was awarded Ford's Outstanding Community Service Award four times. Ed Milligan left Ford to found his own Construction Company which he headed for 13 years. He served this industry as a Director of Builder's Association of Southeastern Michigan. He has been a technical recruiter for four years.

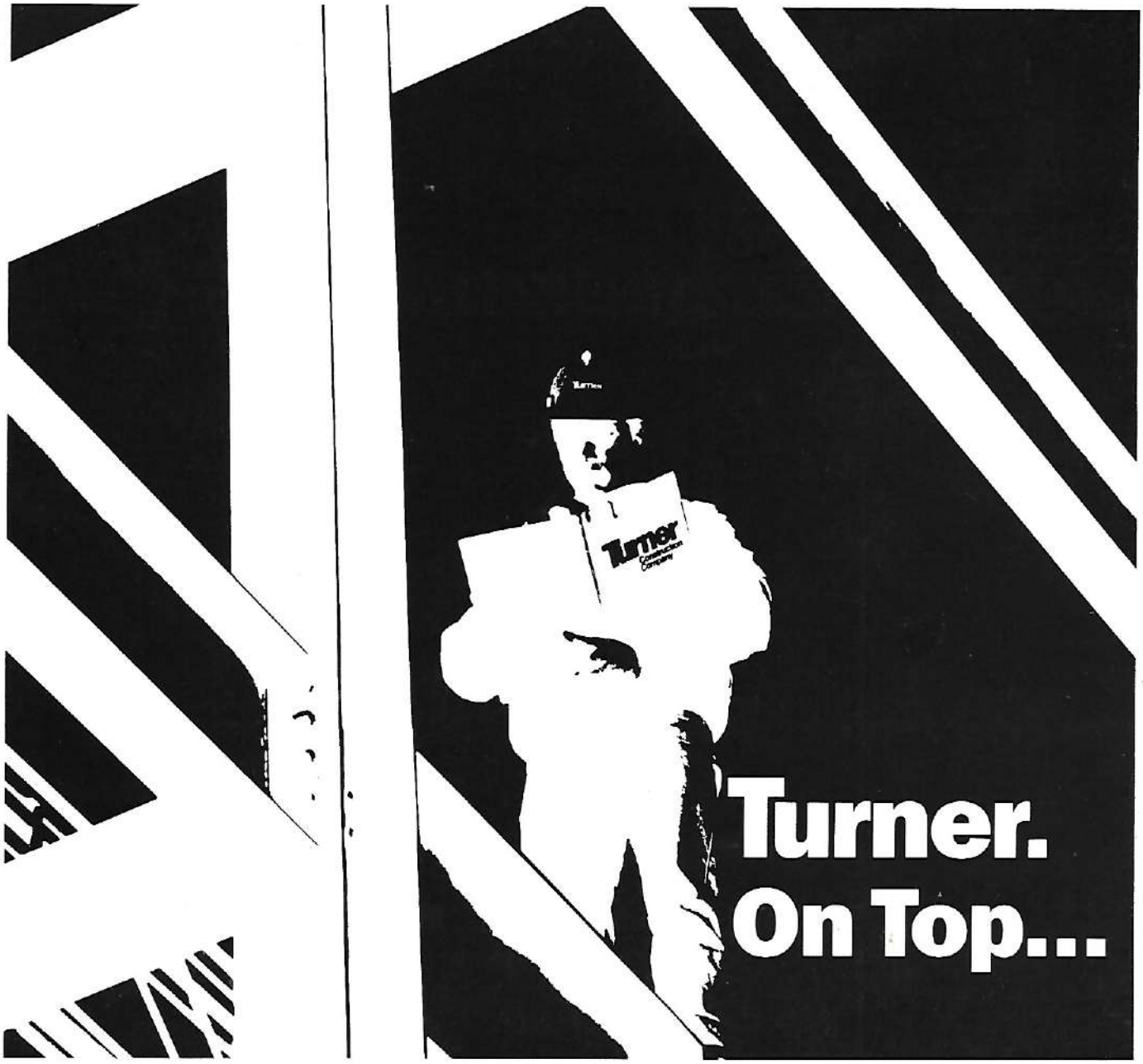
SOMAT ENGINEERING, INC.

SOILS ENVIRONMENTAL MATERIALS TESTING

* **Geotechnical Investigation & Engineering**
* **On site Field & Laboratory Testing**
* **Construction Materials Testing including Non-Destructive Testing**
* **Environmental Engineering - Investigation, Site Selection, Design, Permitting, Construction Supervision, Groundwater Monitoring, Closure Plans and Seismic Monitoring**
* **Asbestos - Investigation & Testing**

26417 NORTHLINE, TAYLOR, MI 48180 * (313) 946-4966
1420 WASHINGTON BOULEVARD, DETROIT, MI 48226 * (313) 963-7163
28517 HOOVER, WARREN, MI 48093 * (313) 751-7370

** Engineered Excellence **



Delivering Stability amid Unpredictables.

We put over 85 years experience to work staying on top of those situations no one anticipates.

Turner. On Top...

Keeping Budgets and Timelines Intact.

Through tight project management procedures we constantly monitor costs and schedules.

Turner. On Top...

Focusing on Quality.

In expanding Cobo Hall, renovating Tiger Stadium, consulting on the People Mover.

In constructing Trappers Alley, Detroit Riverview Hospital, Somerset Place, Maccabees Center, The Townsend Hotel, Huron Shores Corporate Educational Center, Chippewa Correctional Facility and BASF Corporation's Inmont Division Research & Development Facility.

Turner. On Top.

Every Way. Every Time.

Our construction management expertise includes many types of projects:

Commercial
Correctional Facilities
Educational
Municipal
High Tech
Retail
Mass Transportation
Industrial
Hospitality
Health Care

Turner Construction Company
1800 Fisher Building
Detroit, Michigan 48202
313 871-7070