

Curriculum vitae

January 2008

Engineer and Management Scientist with over 30 years' experience in industry, teaching, research, and international consulting: Experience include: policy making, managing corporate and regulatory transition to new realities; strategic business planning; long-range planning; exploring innovative business opportunities; business process re-engineering; strategic corporate re-organization; TQM and change management; advising regulatory agencies, and more recently, promoting the production, consumption and management of Clean Energy.

SUMMARY PROFILE:

CITIZENSHIP: Canadian;

Residence: Ottawa, Canada

WORK EXPERIENCE:

- Advisor and Project Manager on International Consulting assignments
- Twenty-five years with renowned telecom companies: Bell Canada; Telecom Canada; Stentor
- Founder and former Chief of the 'Unit for Communications in Development' at the Institute for International Development and Cooperation, University of Ottawa.
- Teaching and research at renowned Canadian universities such as McGill University; the University of Waterloo; and the University of Ottawa.
- Leading the Cleantech Task Force at the government and industry funded Ottawa Talent Initiative

AREAS OF EXPERTISE AND SPECIAL SKILLS INCLUDE:

- **Information Communications Technology (ICT)** in the context of National Development
- **Strategic Planning and Management;** exploration of options in new and competitive environments
- **Project Management:** multimillion dollar telecom research projects as well as implementation of multimillion dollar, telecommunications based development projects
- **Teaching** graduate and undergraduate management and business students: Strategic Planning; Business Process Re-engineering; Performance measurements and Bench Marking; change management
- Engineering Cost/Benefit analysis; decision risk analysis
- Planning and implementing market trials;
- **Implementation of broadband wireless access** in remote regions
- Excellent **communication skills; interdisciplinary background;** relates well with technologists, managers, executives and other stakeholders.

QUALIFICATIONS AND SKILLS

- **PMP** (Certified Project Management Professional)
- **RBM** (Results Based Management); **LFA** (Logical Framework Analysis)
- **Ph.D., Management Sciences**, University of Waterloo, Ontario, Canada.
- **M. Sc., Industrial Engineering**, Polytechnic University of New York, Brooklyn, NY, USA.
- **B. Tech. (Hon), Mechanical Engineering**, The Indian Institute of Technology, Kharagpur.
- **B. Sc. (Hon), Physics**, St. Stephen's College, Delhi University, India.
- Numerous courses as part of continuing technical and managerial education. (Emerging Technologies; DMS; Wireless Systems; Strategic Planning; Project Management; TQM; Bench marking, etc.)

COUNTRIES OF WORK EXPERIENCE

Canada, India, Malaysia, Georgia, Botswana, Romania,

PROFESSIONAL EXPERIENCE and ACHIEVEMENTS

A. CONSULTING:

- **Project Manager, ICT Based Rural Telecommunications project in India** (Canadian International Development Agency (CIDA) / PricewaterhouseCoopers (PwC) project):
 - The objective of this \$7 million project was to test, develop and implement an ICT based sustainable model for delivery and expansion of telecommunications services in rural India, contributing to the region's social and economic development; to discover ways to improve the ICT sector development.
 - I was responsible for the overall implementation of the project in India. Besides direct responsibility for the ICT implementation component of the project, duties included: set up local project management offices; interface with Indian government officials; oversee the overall design and implementation of the project, ensuring the attainment of overriding objectives of capacity development, gender equality, and environmental sustainability in the implementation of the project; manage the project for scope, cost, quality and timely delivery, using Project Management and Results Based Management practices; interface with Clients, ensuring their full participation in every aspect of the project; stakeholder identification and management; Organize and participate in Steering Committee meetings; conduct interviews, report on project progress; organize and conduct workshops, and produce the final reports.
- Telecommunications **Advisor to the Georgia National Communications Commission (GNCC)** and the *Minister of Privatization* on a market liberalization program, with focus on privatization strategies and sector reform policies and regulatory framework. Specific areas covered include:
 - strategic planning, preparation for meeting with World Bank, design of the regulatory framework, interconnection protocols, access charges, tariffs regime, and licensing procedures.
 - Provided extensive guidance and assistance to the GNCC on the development of a strategic plan, which received much accolades from the World Bank and was the basis for the renewal of financing from the World Bank (\$20M).
- **Advisor to the Botswana Telecommunications Authority (BTA)**, Government of Botswana (Southern Africa) on: overall functioning of the Telecommunications Authority; Issues of Regulatory concern
- **Project Implementation Manager for a \$2 million, Broadband Wireless Multimedia Trial**_(for the Government of Ontario & a Canadian Private Sector Consortium)
 - Project Manager for the Installation and Market trial of a proprietary broadband, wireless, Internet-access technology for rural and remote northern areas in Canada. The objective of the project was to bring remote and disadvantaged areas into the mainstream of Canadian economic and social activity. The technology and the experience are portable to developing countries.
 - Produced a comprehensive report on the “Commercialization and Marketing Plan” for the Broadband Wireless Technology that was tested. (1999-2001)
- **Performed a due diligence** (for private investors in Canada) for a partnership/alliance/investment opportunity in a national wireless telecommunications company in Malaysia.
- **Planned and conducted a Performance Review** (for the Canadian International Development Agency, and the Pacific Telecommunications Council, Hawaii) of cooperation among Communications Organizations in the Pacific Region

- Working with the Romanian Embassy, **prepared an entrepreneurship development program for Romania**, which was very well received by the Romanian Ministry of Industry and Trade, and by the Chambers of Commerce in Romania

B. OTHER INTERNATIONAL DEVELOPMENT INITIATIVES

- a. Pioneering Founder and Chief of a 'Communications in Development' Unit at the Institute for International Development and Co-operation (University of Ottawa), to research and promote the awareness of the role of communications in economic development. Was Chief of the unit for 2 ½ years. This was a pioneering effort at the time as the role and importance of communications in development was scarcely being recognized. (1983)
 - Organized and chaired an International Symposium on "Communications, Technology and International Development" as part of Canada's participation in the United Nations' World Communications Year activities; edited and published the proceedings.
 - Developed and taught senior year graduate courses in development
 - Contributed to strategic national (Canadian) initiatives such as Vision 2000 and the Technology Task Force, and to the Canadian participation in the UN's World Communications Year
- b. **A Sabbatical Experience:** From a development perspective, one of my greatest learning experiences was on a 4 month long 'sabbatical' from my consulting work to observe first hand, and living as a native, grass roots social and economic development in India. My special interest this time was the impact of Information Communications Technology (ICT) on the delivery of government and municipal services and on the lives of ordinary and marginalized citizens. I concentrated on the Southern Indian states of Tamil Nadu, and the 'miracle' state of Kerala. The latter was of particular interest as it has an anomalous situation of a very low per capita income level, but has a Human Development Index comparable with that of the United States. ICT is making substantial inroads in Kerala and Tamil Nadu, though the sustainability of rural services remains a problem. In the course of my stay, I visited educational institutions, (schools and colleges), doctors' offices, hospitals (such as the Vellore Christian Medical College and Hospital) and clinics of various types, legal offices, courts, registrars' and municipal offices, and innumerable Internet cafes, both in rural and urban areas. I talked to: ordinary people, with and without access to computers; university professors; no-name NGOs and volunteer workers. I studied websites, and followed up on ICT initiatives by institutions such as the Swaminath Research Foundation. Social and economic development from the perspective of those undergoing development was an invaluable learning experience. Based on my experiences in India I have produced two draft papers on "ICT and development".
- Two and a half years as a Methods Engineer in the private sector in India. Another half year as management trainee. (1963-1965; 1962; 1961)

C. TELECOMMUNICATIONS INDUSTRY:

Stentor Resource Centre Inc.; Telecom Canada; Bell Canada: 1971 – '76; 1978 - '97

a. Strategic Planning:

- Chaired the Canadian National Fundamental Planning Working Group, guiding: the research and long term development of the national telecommunications network; and the strategic planning for business evolution, network evolution, standards and operations. Projects worth over \$40 million.

b. Business and Technology Planning:

- Monitored technology and market development to uncover innovative new business opportunities
- Researched, identified and developed new strategic opportunities worth over \$2 Billion, in network centric computing, health-care, communities-of-interest, and in small businesses.

c. Regulation and Telecommunications Policy:

- Researched and Developed policy positions on telecommunications industry restructuring; de-monopolization and competition; participated extensively in regulatory hearings, developing position papers and preparing witnesses.

d. Management Information Systems / Corporate Studies / Engineering Economics:

- Directed the development of systems for the evaluation of capital undertakings at Bell, and for complex trans-Canada projects

e. Information Technology

- Planned and provided office automation and personal computing tools and pioneered strategies to promote User Computing in corporate functions in the company.

D. TEACHING AND RESEARCH:

- Instructor for Project Management Professional (PMP) certification of professional engineers and hi-tech people in Ottawa.
- Developed and taught senior year graduate/MBA courses at the University of Ottawa:
- **Pioneering founder of a Communications and Development Unit** at the Institute for International Development and Co-operation (University of Ottawa), to research and promote the awareness of the role of telecommunications in economic development.
- Guest expert lecturer on Telecommunications Strategic Planning to executives from developing countries: **TEMIC** (Telecommunications Executive Management Institute of Canada), and at the *Northern Telecom Network Engineering Program*

E. OTHER INITIATIVES:

- Contributed to strategic national (Canadian) initiatives such as Vision 2000 and the Technology Task Force, and to the Canadian participation in the UN's World Communications Year (WCY)
- As part of the WCY activities, organized and chaired an International Symposium on "Communications, Technology and International Development"; edited and published the proceedings.
- Was a resource person for Junior Achievement in Ottawa.