

Date of Birth : December 25, 1946

E-Mail Address : [step@iitr.ernet.in](mailto:step@iitr.ernet.in)

Education : Ph.D, from University Libre de Bruxelles, BELGIUM.

M.E., (Ext. Met.) from University of Roorkee,  
Roorkee.

B.E., (Met.) from University of Roorkee, Roorkee.

Visiting Fellowship :

Area of Interest : Corrosion Science & Engg., Engg. Failures its analysis  
and prevention, Material selection.

**Experience Summary :**

1. Research Teaching papers published
  - 29 year experience teaching in undergraduate and post graduate classes.
  - 30 years of research experience
  - 42 research papers
  - 165 project reports.
2. **Experience (no. of years)**
3. **International exposure (Assignments, Conference , Projects)**
  - i. Nominated as a member of international scientific committee of the third international symposium on advanced material held during sept. 2024, 1993 at Islamabad, Pakistan.

ii. Completed doctoral programme (for Ph.D) from University  
Libra da Bruxeller, Belgium from Feb. 1976 to March 1980.

iii. Attended conference on advanced material held in  
Islamabad, Pakistan from Sept. 17 to 27, 1989.

iv. Visited University of Hannover, Germany from Oct. 1, 1996  
to Dec. 24, 1996. under DAAD fellowship.

v. Visited Steinbeis Foundation for Economics Promotion.  
Stuttgrt, Germany as a dalegate of condederation of India industry from July  
14 to 25, 1997 and visited several Institute and Industries around Stuttgart.

vi. Visited university of hannover Germany from June 5 to June  
26, 2000 under DST-DAAD project on water jet cutting technology.

vii. Visited university of Hannover Germany from June 2 to  
June 24, 2001 under DST-DAAD project.

viii. Principal Investigator of INDO-US project an Material  
Science under DST-DAAD project.

ix. Also visited U.K. France, Holland, Luxemburg.

**5. Visits Abroad (Place, Yeas, Reason).**

**6. Ph.D. Guidance (Title & Year). - Three Ph.D. Guided.**

**7. Sponsored Consultancies (Title, Funding Agency Amount)**

- “Development of Bottom Hole Heater”, sponsored by Oil and Natural Gas Commission by (O.N.G.C.) completed.
- “Identification behaviour of duplex steel” sponsored by Oil and Natural Gas commission (O.N.G.C.) completed.
- Indemnification of organic shells attached to and growing on offshore structures and remedial measures”, sponsored by Oil and Natural Gas Commission (O.N.G.C.) completed.
- Hydrogen Induced cracking/sulphide stress corrosion cracking of steels (O.N.G.C.) costing Rs. 2.5 lakhs completed.

**8. Sponsored Research Projects :**

i. “Effect to TiO content of Bauxite on the Alumina Technology with Dr. Satya Prakesh”, Sponsored by Department of Energy (DAE), Govt, of India.

ii. Corrosion in weldments”,

iii. “Study of steel corrosion in aqueous media prevailing in pulp and paper Industry”, sponsored by department of Science & Technology, Govt. of India – completed.

iv. Principal Investigation on the Project Passivation and Stress Corrosion Cracking Under INDO-US Programme on Material Science (1985-1988).

v. Principal Investigator of the project on “Reliability estimations of electronic and electrical contacts under corrosive environment”, sponsored by U.P.C.S.T. completed.

vi. Principal Investigator of the project on “Material Performance in Chloride Environment with Special Relevance to Stress Corrosion Cracking”, Sponsored by Oil Industry Development Board, OIDB, Costing Rs. 49,70,000/= Completed.

**CENTRE FOR CORROSION PROTECTION :**

· Coordinator of the center for corrosion and protection sanctioned by M.H.R.D., Ministry of Education Government of India (Costing Rs. 10,000,00.00 for 15 months). Later on extension was granted for its continuance by A.I.C.T.E., New Delhi.

**FOREIGN LANGUAGE KNOW :**

France (obtained a diploma from the chamber of commerce, Brussels, Belgium)

**SPECIALIST COURSES COORDINATED :**

i. Specialist courses on “Corrosion and Protection”, Tubular inspection, maintenance & application engineering, material selection and recent development in welding processes for inservice engineers and ONGC engineers.

ii. Specialist courses on “Analysis of Metallurgical Failures”, for inservice engineers.

iii. Specialist courses on “Heat Treatment of Metal and Alloys”, for Inservice engineers.

iv. Q.I.P. Course on “High Temperature oxidation of metals and Alloys” for engineering college teachers.

COURSES TAUGHT AND DEVELOPED :

UNDER GRADUATE LEVEL :

- i). Electrometallurgy and Corrosion
- ii). Electrical Materials
- iii). Material Science

Graduate Level :

- i). Analysis of Metallurgical failures
- ii). Corrosion and Protection
- iii). Material Selection

ADMINISTRATIVE RESPONSIBILITY UNDERTAKEN

- i) Proctor in the University - July 1988 Jan. 1993 and 31<sup>st</sup> March 94 Sept.28, 1996.
- ii) Office Incharge Corrosion Laboratory

- iii) Member of the Department Administrative Committee 1990-1992

#### OTHER RESPONSIBILITIES UNDERTAKEN

- i. Ph.D. & M.Phil Examinerships of the other Universities.
- ii. Refer for peer review of C.S.I.R. Merit & Normal Assessment scheme for appointment of scientists as senior fellows in the grade of Rs.5900-200-6700.
- iii. Expert for evaluating proposal under the D.S.T. scheme "Utilizing the scientific expertise of retired scientists (USERS).
- iv. Expert for evaluating project proposal under Department of Non-Conventional energy sources Ministry of energy, Government of India.
- v. Paper setter for U.P.S.C. examination and other Universities examinations.
- vi. Selection committee expert for various organizations including RAC, DRDO.

#### MEMBERSHIP OF INTERNATIONAL COMMITTEE

- NOMINATED AS A MEMBER OF "INTERNATIONAL SCIENTIFIC COMMITTEE" OF THE THIRD INTERNATIONAL SYMPOSIUM ON ADVANCED MATERIALS HELD DURING SEP. 20-24, 1993 AT ISLAMABAD, PAKISTAN

MEMBERSHIP OF NATIONAL COMMITTEE

- MEMBER OF THE HIGH POWERED COMMITTEE TO EXAMINE THE IMPORT OF HAZARDOUS WASTE SET UP BY MINISTRY OF ENVIRONMENT & FORESTS, GOVERNMENT OF INDIA.
- MEMBER, BOARD OF GOVERNORS OF REGIONAL ENGINEERING COLLEGE, CALICUT AS UNIVERSITY GRANTS COMMISSION (UGC) NOMINEE FROM 1.4.1997 TO 31.3.2000.
- MEMBER OF THE PROJECT ADVISORY COMMITTEE (PAC) OF INTEGRATED LONG TERM PROGRAMME (ILTP) OF INDO-RUSSIAN COOPERATION ON MATERIAL SCIENCE & TECHNOLOGY (ENGINEERING MATERIALS) OF THE DEPARTMENT OF SCIENCE & TECHNOLOGY (DST). GOVT. OF INDIA.

VISITS TO FOREIGN COUNTRIES

- Brussels, Belgium, from Feb. 1976 to March 1980 for Doctoral Programme.
- U.K., France, Germany and Holland between 1976 and 1980.
- Pakistan from Sept. 17 – 27, 1989.
- Germany, Hannover from Oct. 1, 1996 to Dec. 24, 1996 under DAAD fellowship
- Germany, “Steinbeis foundation – Confederation of Indian Industry (CII) Project on Technology Transfer” at Steinbeis Foundation on Economic Promotion at Stuttgart, Germany from Jul 14 – 25, 1997.

As Director, STEP

Main Duties :

1. Entrepreneurship Development among the engineering students mainly in hitech areas. This is being facilitated by organizing Entrepreneurship awareness camps (EACs) and Entrepreneurship Development Programmes (EDPs). The

young entrepreneurs are also helped by arranging their meeting with technical experts and experts from financial institutions. During the last 3 years, 7 entrepreneur have set up their units and many were helped and motivated for starting their own enterprises.

2. Consultancy Services : STEP has also engaged itself in providing, consultancy services to industries. As the government funding has been stopped from April , 2000. STEP started filing tenders for the activities, where University has expertise and facilities available, mainly to become selfsustaining. This has already brought fruitful results. In one year time, STEP has become selfsustaining. Some of the big projects completed / continuing in last one year are :
  - a. Visit to polluting industrial unit (dying, pickling, electroplating, Garages and effluent treatment plant of restaurants at NCT of Delhi, sponsored by Delhi Pollution Control Committee (DPCC). About 174 industrial units were visited. Modifications were suggested and about Rs. 24.0 lacs were earned in this project.
  - b. A project from SIEMAT (State Institute of Educational Management and Training) at Allahabad was taken up for a survey of World Bank sponsored school buildings built in 1997-98 in the four districts of U.P. (namely Shahjahanpur, Hardoi, Lalitpur and Siddharthnagar. The project was completed in time at a cost of 2.00 lacs.
  - c. A project on development of Vibration damper for calibration of 400 kVA lines was taken up from M/S ASBESCO Ltd., Calcutta and completed as per schedule for a total cost of Rs. 5.5 lacs.
  - d. A very challenging project on turn key basis was taken up for Design and installation of ETP at the R&D corporate center of Bharat Petroleum Corporation Ltd. At Greater, NOIDA at a total cost of Rs. 28.49 lacs. The project was completed on mid June 24, 2001 in a record time of 3.1/2 months.
  - e. A project on digitized mapping of survey of India maps was taken up, sponsored by National Informatics Centre, NIC, New Delhi and so far 33 maps have been digitized for a total cost of Rs. 1.33 lacs. The work is continuing.
  - f. A number of projects have been submitted and likely to be taken up, List is attached herewith.
  - g. A project on energy Conservation is being taken up in collaboration with 3 EX, Bangalore and Environment and Energy Business Company of Delhi. So far walk – through audit has been conducted in three factories



viz, CFFP plant at BHEL, Hardwar, ITC and Star paper Mills at Saharanpur.

- h. A number of projects of nearly created state of Uttaranchal are also under active consideration of the Govt. of Uttaranchal. Some of these are :
  - i. Design of new purposed Bus station at Dehradun.
  - ii. Survey of Massonic areas for forestry and non-forestry regions.
  - iii. Survey of some areas of Garhwal for development of touristic resorts. It is interesting to note that all these projects hae been sanctioned/under active consideration based on tough completion from other reputed organizations.
- 4. Technology Transfer : The STEP is also persuing hard for tedhnology transfer of all the new technologies/processes developed in the laboratories of the University.
- 5. Manpower Training : STEP has also undertaken special training programmes for the industries as per their an requirements as well as general train9ing/courses organised for industries on special engineering topics.

A programme for computer education is running from may 1997 on differnt topics right from basics to different computer languages including software development.