

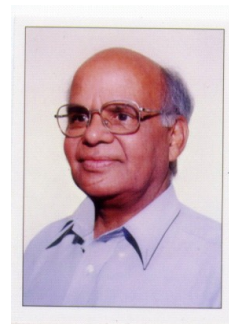
A BRIEF C.V. OF PROF. H.P. GARG

- Name** : Prof. (Dr.) H. P. Garg
- Address** : Senior Consultant
National Institute of Solar Energy,
Gwalpahari, Gurgaon-Faridabad Road,
Gurgaon- 122003, Haryana
- Tel Nos.** : +91-98180 00984 (Mobile)
- E-mail** : hpgarg01@rediffmail.com ; hpgarg01@gmail.com
Website : www.profhpgarg.com
- Education** : M.Sc., Ph.D.: First Ph.D. in India on Solar Energy
- Experience** : Prof. Garg has been actively engaged in Teaching; Research, Development and Demonstration (RD&D), and Consultancy in the field of Renewable Energy; Technical & higher education, Management and Energy Education and Administration for the last 45 years.
- Positions Held** :
- : Vice Chairman, BLS Group of Institutions
(February 2009-Dec. 2013)
 - : IREDA Chair Professor, Centre of Energy Studies
Indian Institute of Technology, New Delhi - 16
(April, 2005 – Jan, 2009)
 - : Professor, Coordinator & Head, Centre of Energy Studies
Indian Institute of Technology, New Delhi - 16
(Jan 1979 – March 2005)
 - : Principal Secretary, Director General and Advisor
Department of Science and Technology, Govt. of Madhya Pradesh
(Dec. 2002 – May 2004, On lien from IIT Delhi)
 - : Director, Institute of Technology & Management (ITM)
Gurgaon, (For Six months in 2005, on lien from IIT Delhi)
 - : Head, Division of Wind Power & Solar Energy
Central Arid Zone Research Institute (CAZRI)
Jodhpur, Rajasthan (Sep. 1972 – Dec. 1978)
 - : Incharge of Solar Energy Section
Central Building Research Institute (CBRI), Roorkee
(May 1965 – September 1972)
- Field of Specialization** : Higher Education & Technical Education
Solar Energy, Renewable Energy & Sustainable Energy
Energy, Ecology and Environment
Science, Engineering & Technology
- Expert Memberships** : All India Council of Technical Education (AICTE),
Department of Science & Technology, GOI,
Ministry of New and Renewable Energy, GOI,
University Grants Commission, GOI,
Council of Scientific & Industrial Research, GOI,
Indian Council of Agricultural Research, GOI,
UNESCO, UNIDO, GEF, ICTP, UNDP, UNU, WREN
- Awards** : Nominated for Nobel prize in 2002
More than 15 National and International Awards
- Academic Attainments** : More than 512 research papers, 14 books, 30 Ph.D. guided, and large number of R&D and consulting projects.

SUMMARY OF ACHIEVEMENTS OF PROF. H. P. GARG

Name : **Prof. (Dr.) H. P. Garg**
Address : Senior Consultant
National Institute of Solar Energy,
Gwalpahari, Gurgaon-Faridabad Road,
Gurgaon- 122003, Haryana
Tel. Nos. : +91-98180 00984 (Mobile)
E-mail : hpgarg01@rediffmail.com ; hpgarg01@gmail.com
Website : www.proghpgarg.com

Education : Ph.D. (Solar Energy) ; **First Ph.D. in India on Solar Energy**
M.Sc. (Physics)



Achievements :

- (i) Prepared and Implemented **Science & Technology Policy, VISION – 2020** for the State of MP, first time in the history of any state and received commendable certificate from Chief Minister, M.P.
- (ii) Total **45 years of research, teaching, planning, management and administrative experience.**
- (iii) **32 years of experience as Professor at IIT Delhi.**
- (iv) Supervised **30 students for successful completion of Ph.D.**
- (v) Published **512 research papers in Scientific International/National Journals.**
- (vi) Written **14 books** (8 published by International and 6 by Indian publisher).
- (vii) Written **9 monographs/chapters** in books.
- (viii) Prepared **45 technical reports.**
- (ix) Research work is **referred practically in all books of Solar Energy** and related research papers.
- (x) Adjudged as the **Second most Prolific Writer** by TERI in India.
- (xi) Completed **36 R&D based Consultancy Projects.**
- (xii) Completed **15 Institutional and 21 Sponsored Research Projects.**
- (xiii) Served / serving as member of **16 Professional Societies and 21 Committees.**
- (xiv) Recipient of prestigious **UNESCO Chair and IREDA chair** Professor in the field of Renewable Energy.
- (xv) **President**, Indian Chapter of ICTP.
- (xvi) **President**, Indian Society of Renewable Energy and Environment Education (ISREEE).
- (xvii) Organised **30 International /National Symposia/Workshops.**
- (xviii) **Chief Guest/President/Session Chairman / participant in 190 Indian and 82 International Conferences/Symposia.**

Awards:

- (i) **8 best paper awards** on my research papers.
- (ii) Awarded as **Pioneer in the field of Renewable Energy** from World Renewable Energy Network (WREN) and UNESCO in 1996 at Denver, Colorado (USA).
- (iii) **Gold Medal** and award as **Renewable Energy Man of the Year** (1995) from Amir of Bahrain at Denver, Colorado (USA).
- (iv) **Dr. K.S. Rao Memorial National Award** for the **Year 1996** for outstanding lifetime contribution to Development of New & Renewable Sources of Energy with a cash prize of Rs.50,000/- and Citation.
- (v) **Senior Associate** of International Centre for Theoretical Physics, Italy three times which is a rare distinction.
- (vi) **HARI OM PRERIT S.S. BHATNAGAR Award in 1997** for outstanding research in Solar Energy with a cash prize and certificate.
- (vii) Received **SURYA Award** for excellent work in the field of Alternate Sources of Energy for the year 1996-97 with a cash prize of Rs. 30,000/- and citation by National Institute of Rural Development and Social Services.
- (viii) **Certificate of Excellence** from All India Council of Technical Education (AICTE).
- (ix) Honoured by Prestigious Title "**Man of the Year 1999**" for outstanding accomplishments in Science and Technology by American Biographical Institute, U.S.A.
- (x) Hindi book entitled, "Sour Urja Aur Uske Upyog" received first award from Ministry of Non-conventional Energy Sources (MNES), Govt. of India.
- (xi) **Commendable Certificate** from Hon'ble Shri Digvijay Singh Ji the Chief Minister, Madhya Pradesh.
- (xii) Honoured by **Shiksha Rattan Award** for Meritorious services, outstanding performance and remarkable role in education in 2007 from India International Friendship Society.
- (xiii) Received **Rajiv Gandhi Shiromani Award** for excellence in Energy Research and Services in 2007 from India International Friendship Society.
- (xiv) Honoured by the title, **Best Citizens of India** in the year 2007 by International Publishing House, New Delhi.
- (xv) Honoured by **Mother Teresa Excellence Award** in the field of Renewable Energy in 2012.

RESUME OF PROF. H.P. GARG

A. PERSONAL

Name : Prof. (Dr.) H. P. Garg

Address : Senior Consultant
National Institute of Solar Energy,
Gwalpahari, Gurgaon-Faridabad Road,
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Tel. Nos. : +91-98180 00984 (Mobile)
E-mail : hpgarg01@rediffmail.com;
hpgarg01@gmail.com
Website : www.profhpgarh.com

Educational Qualifications : Ph.D. (Physics)
(First Ph.D. in India on Solar Energy)
M.Sc. (Physics)

B. POSITIONS HELD

More than 45 years of Administrative, Managerial, Research & Development, Planning & Implementation, Academic, Teaching, Consultancy and Industrial experience at IIT Delhi; ITM Gurgaon, BLS Group of Institutions, Department of Science & Technology (Govt. of M.P.), CAZRI Jodhpur, CBRI Roorkee and BLS Group of Institutions.

- i) **Vice Chairman, BLS Group of Institutions, New Delhi, (Feb. 2009-Dec 2013).** During this period I was responsible for Academic growth, Addition of Infrastructure facilities, Development strategies, Coordination (amongst regulatory bodies, affiliating universities, Govt. Agencies, concerned state governments), Collaboration and accreditation at National and International level, Expansion and addition of New programmes/ courses, Branding of the group, Establishment of an Engineering Institute and possibly framework of establishment of a private BLS University.
- ii) **Professor, Coordinator & Head, Centre for Energy Studies, Indian Institute of Technology, New Delhi for about 30 years (Jan 1979 – Jan 2009).** During this period I was coordinator M. Tech. Programmer for 6 years, Head of the Centre for 3 years, United National University (UNU) Coordinator for 4 years, UNESCO Chair Professor for about 6 years and IREDA Chair Professor for about four years. During this period the responsibilities were: teaching, research and development, administration, consultancy & technology development and transfer.
- iii) **Held the position of Director, Institute of Technology and Management (ITM), Gurgaon** during April 1, 2005 to Sept. 30, 2005 and was responsible for achieving academic excellence in engineering and management education and administration procedures. Also creating an environment for high quality industrial research and consultancy through sponsored projects.
- iv) **Held the position of Principal Secretary, Department of Science and Technology, Govt. of Madhya Pradesh** during Dec. 2001 to May 2004 and was responsible for various Science & Technology Programme in the State including formulation of Science and Technology Policy for MP State, its implementation, formulation of projects, generation of funds through National & International agencies and various science & technology popularization programme.
- v) **Held the position of Director General, M.P. Council of Science and Technology**

(MAPCOST), Bhopal and Science Adviser, Govt. of M.P. during Dec. 1, 2001 to May, 31, 2004 and was responsible to plan and implement various policies of Central Government and State Government in the State of Madhya Pradesh. Assignment/responsible for Administration, Management, R&D Planning, Budgeting, Monitoring, Policy planning in Science & Technology for M.P. Council of Science & Technology, Govt. of Madhya Pradesh.

- vi) **Incharge of Solar Energy Section & later Head of Division of Wind Power and Solar Energy Utilization** at Central Arid Zone Research Institute (CAZRI) Jodhpur (September 1972-January 1979) Under Indian Council of Agricultural Research (ICAR). Here the main responsibilities were: Planning, Coordination and Establishment of the New Division; Research and Development in the field of Renewable Energy and preparation of an action plan for USAID supported All India Coordinated project in the field of Renewable Energy.
- vii) **Incharge of Solar Energy Section at Central Building Research Institute (CBRI), Roorkee (May 1965 – September 1972)** under Council of Scientific and Industrial Research (CSIR). Main responsibilities were : Research, Designing and Development of Solar Energy Devices useful in saving of Energy in Buildings.
- viii) **Postgraduate Lecturer at Mahanand Mission College, Ghaziabad, U.P. (July 1964 – May 1965).** The main job was teaching of Physics (Mathematical Physics, Solid state physics and General Physics) at undergraduate and postgraduate level.

C. ACADEMIC QUALIFICATIONS :

	Degree	University	Subjects	Year
1.	B.Sc.	Agra University	Physics, Chem., Maths.	1962
2.	M.Sc.	Agra University	Physics (Spectroscopy)	1964
3.	Ph.D.	University of Roorkee	Solar Energy (Mechanical Engineering)	1970

(First Ph.D. in India on Solar Energy) (while in service)

D. ADMINISTRATIVE / ACADEMIC EXPERIENCE

National

- (i) **Professor**, Indian Institute of Technology, New Delhi (Jan 1979 – March 2005).
- (ii) **Head**, Centre for Energy Studies, Indian Institute of Technology, New Delhi (1991-94).
- (iii) **IREDA Chair Emeritus Professor**, Indian Institute of Technology, New Delhi (April 1995 – Feb. 2009).
- (iv) **Vice Chairman**, BLS Group of Institutions, New Delhi (Feb. 2009-Cont.)
- (v) **Director**, Institute of Technology and Management (ITM), Gurgaon (April 2005 – Sept. 30, 2005).
- (vi) **Principal Secretary**, Department of Science & Technology, Govt. of M.P. (Dec. 2001 – May 2004).
- (vii) **Science Advisor (M.P. Government) and Director General**, M.P. Council of Science &

Technology, Bhopal, M.P. (Dec. 2001 – May 2004).

- (viii) **Head**, Division of Wind Power and Solar Energy Utilization, Central Arid Zone Research Institute (ICAR Laboratory), Jodhpur, Rajasthan (1972-78).
- (ix) **Head**, Solar Energy Section, Central Building Research Institute(CSIR Laboratory), Roorkee, Uttar Pradesh (1965-71).
- (x) **Coordinator**, Solar Energy Programme, IIT Delhi (1984-94).
- (xi) **Prestigious IREDA & UNESCO Chair Professor** in Renewable Energy (8-years)
- (xii) **Chairman**, National Energy Conservation Award Committee, Govt. of India (1993-96).
- (xiii) **President**, Indian Chapter of International Centre for Theoretical Physics (IC-ICTP) (1993-Cont.).
- (xiv) **President**, Indian Society for Renewable Energy & Environment Education (ISREEE) (1994-Cont.).
- (xv) **Vice President**, Solar Energy Society of India (1995-2001).
- (xvi) **Fellow**, Institute of Engineers (FIE), India.
- (xvii) **Life Member**, National Society on Heat and Mass Transfer.
- (xviii) **Life Member**, Indian Society of Technical Education (ISTE).
- (xix) **Life Member**, Indian Society of Desert Technology.
- (xx) **Life Member**, Solar Energy Society of India.
- (xxi) **Board member**, Industrial Research & Development Unit, IIT, Delhi (1999-2001).
- (xxii) **Member**, DSIR National Committee on Energy Conservation (1993-96).
- (xxiii) **Member, Academic Council**, Mahatma Gandhi Institute of Integrated Rural Energy Planning, Delhi (1992-96).
- (xxiv) **Member, Governing Council**, Devi Ahilya University, Indore (1992-Cont.).
- (xxv) **Member of Research Council**, of few National Laboratories.
- (xxvi) **Member, Governing Council**
Maitrey College, New Delhi (1993)
College for Business Studies, Delhi (1994-1999)
College for Applied Sciences, New Delhi (1996-1999)
Rajdhani College, New Delhi (2006-2007)
- (xxvii) **Chairman**, House allotment Committee, IIT Delhi (1994)
- (xxviii) **National and International Conferences / Symposia / Workshops / Schools organised**: Have organised in total **40 such meetings** in India.

International

- (i) **Institutional Coordinator**, United Nations University (UNU), Tokyo, Japan (1994-97).
- (ii) **Recipient of Prestigious UNESCO Chair** in Energy Education (1992- 1998).
- (iii) **President**, SAARC Renewable Energy Network (SAREN) (1994-Cont.).
- (iv) **President**, Indian Chapter of International Centre of Theoretical Physics (IC-ICTP).
- (v) **Founder Member**, International Association for Solar Energy Education (IASSEE).
- (vi) **Founder Member**, World Renewable Energy Network (WREN).
- (vii) **Founder Member & Fellow**, International Energy Foundation (IEF).
- (viii) **Member**, International Solar Energy Society (ISES).
- (ix) **Consultant to** United Nations Development Programme (**UNDP**), United Nations Educational, Scientific and Cultural Organisation (**UNESCO**), United Nations University (**UNU**) and Global Environment Facility (**GEF**).
- (x) **Expert to formulate and evaluate several research proposals** in the field of Renewable Energy, both at the National and International levels.

Responsible for policy making and co-ordination of the activities in the field of Renewable Energy at the Institutional, National and International (in few developing Countries) levels.
- (xi) The **first PL – 480 funded project** on Solar Energy Utilization in Rural Areas was awarded to me in 1978 while I was at CAZRI, Jodhpur.

E. PROFESSIONAL TEACHING / RESEARCH / ADMINISTRATIVE ACHIEVEMENTS

More than **45 years of teaching, research and development, consultancy, administrative, Planning & Implementation and Managerial** experience in the field of **Renewable Energy, Energy Education and Science & Technology and development**.

Contributed to Curriculum Development, Teaching Methods, Inter-disciplinary programs and integration of disciplines at Undergraduate and Graduate level education.

Formulated and evaluated several research proposals in the field of Renewable Energy, both at the National and International levels.

Contributed to policy making and coordination of the activities in the field of Renewable Energy at the Institutional, National and International (in a few developing Countries) levels.

Prepared a road map for effective economic and social development and implementation of Science & Technology policy and programmes for the State of Madhya Pradesh.

Major Research Career Goal & Objectives

To lead the nation to self sufficiency in the Energy Sector by :

- i) Organizing and co-ordinating activities towards an integrated approach to renewable energy planning, management and implementation along with efficient utilization of conventional energy.

- ii) Making efforts to link education, training, research, technology development and transfer through a cohesive approach.
- iii) Strengthening a triangular approach to bring together educational & scientific institutions, industries, and users for renewable energy technology experimentation, perfection, and transfer for application in rural & urban settings.
- iv) Planning, coordinating and initiating & encouraging activities both at institutional and industrial levels to make renewable energy devices cost effective & reliable.
- v) Promoting the use of renewable energy devices for protecting the environment and for readjusting the ecological balance.
- vi) Responsible for Science and Technology Policy and Programmes of Government of Madhya Pradesh in the State. Formulation of Science & Technology policy of the state Government and promotion of science and development and infrastructure for research work in the state. Liaison officer between Council and National and State Level Govt. Departments and Institutions. Science & Technology Policy, VISION – 2020 for the State of M.P. has been prepared, released and is now being implemented raising the index rating to no.1 from languishing on 13th in row.
- vii) Actively involved in evolving a policy of Higher education particularly technical education in India.

Research Achievements

1. Research Supervision

Supervised **30 students for successful completion of Ph.D.**

2. Outstanding Research Contributions

Research work is referred practically in all books of Solar Energy and related research papers.

3. Publications

Published more than 512 papers.

232 research papers in Scientific International/National Journals published with co-authors.

204 research papers presented at and published in proceedings of National/International Conferences/seminars/symposia/workshops.

76 reviews/popular articles published in International/National Journals.

9 monographs/chapters in books.

14 books authored/co-authored/co-edited.

4. International Conferences/Symposia Chaired/Attended

Chief Guest/President/Session Chairman/or delivered invited lectures and presented papers at more than **170 National and 105 International Conferences/Symposia.**

5. Consultancy and sponsored Projects

Completed **36 Consultancy Projects**

Completed **15 Institutional and 21 Sponsored Research Projects**
(Brought in more than four crore of rupees in this context).

Instrumental in bringing **several research projects and programme worth several crore of rupees** at MAPCOST, Bhopal.

6. National and International Conferences/Symposia/Workshop/Schools/Organised

Organised in total **40 such meetings** in India

7. Technology Generation and Transfer to Industry

(a) At CBRI, Roorkee (CSIR)

Two technologies, one on **Natural Circulation Solar Water Heater** and another one on **Novel Solar Water Heater** generated by me was transferred through NRDC to Industry and have been successfully commercialised and are in continuous production.

(b) At Central Arid Zone Research Institute, Jodhpur (ICAR)

A technology for the production of Permanent **Type Solar Still** was transferred to Industry for commercialisation.

A technology for **Built in Storage type of Solar Water Heater** was commercialised through NRDC and is in production.

(c) At IIT Delhi

Creation of structures for the generation of technologies in a variety of areas, especially those related to **Photovoltaics**, Solar Thermal Devices, Solar Architecture and Energy Conservation, as well as the evolution of transfer mechanisms.

As Head CES, organised task forces and programme management, which has resulted in a number of energy related technologies, and some of them reaching at the transfer stage.

A compendium of technology profiles from the Centre have been prepared.

(d) At M.P. Council of Science & Technology, Bhopal, M.P.

Responsible for Science and Technology Programmes of Government of Madhya Pradesh in the State. Formulation of Science & Technology policies of the state Government and promotion of science and development of infrastructure for research work in the state. Liaison officer between Council and National and State Level Govt. Departments and Institutions. Science & Technology Policy, VISION – 2020 for the State of M.P. has been prepared, released and is now being implemented.

F. ASSOCIATION WITH PROFESSIONAL SOCIETIES/COMMITTEES

Recipient of prestigious UNESCO Chair from UNESCO.

Recipient of prestigious IREDA Chair Professor in Renewable Energy.

Member of 16 Professional Societies and 21 High Level Committees.

Member of Editorial Board of several National and International Journals including **Renewable Energy - An Int. Journal, Energy - The Int. Journal**, of Pergamon Press, and the **Solar Energy**.

Reviewer for many Journals including Solar Energy, Int. J. of Solar Energy, J. of Solar Energy Engineering, Int. J. of Heat and Mass Transfer, J. of Solar Energy Research, Renewable Energy - An Int. Journal, Energy - The International Journal etc.

Coordinator, Solar Energy Programme, Indian Institute of Technology, New Delhi, India.

Member Executive Committee of World Renewable Energy Network (WREN), U.K.

Consultant to United Nations Development Programme (UNDP), United Nations Educational Scientific and Cultural Organisation (UNESCO), United Nations University (UNU) and Global Environments Facility (GEF).

Visited several countries including USA, USSR, Germany, England, Australia, Canada, Iran, Iraq, Italy, Thailand, Singapore, Bangladesh, Libya, Ghana, Zambia, Sweden, Japan, Jordan, Sudan, Hungary, Nepal, Costa Rica, Sri Lanka, Malaysia, Myanmar, Kenya, Ethiopia, Israel, and delivered lectures.

G. AWARDS / RECOGNITION

- (i) **Eight best paper Awards** for research.
- (ii) **Outstanding contribution recognition** by IIT Delhi as best researcher and consultant.
- (iii) **Second most prolific researcher (author) in Renewable Energy** in India by Tata Energy Research Institute, New Delhi.
- (iv) **Awarded as Pioneer in the field of Renewable Energy** from World Renewable Energy Network (WREN) and UNESCO in 1996 at Denver, Colorado (USA).
- (v) **Gold Medal and award as Renewable Energy Man of the Year (1995)** from Amir of Bahrain at Denver, Colorado (USA).
- (vi) **Dr. K.S. Rao Memorial National Award for the Year 1996** for outstanding lifetime contribution to Development of New & Renewable Sources of Energy with a cash prize of Rs. 50,000/- and a Citation.
- (vii) **HARI OM PRERIT S.S. BHATNAGAR Award in 1997** for outstanding research during last three years in Solar Energy with a cash prize and certificate.
- (viii) **SURYA Award for excellent work in the field of Alternate Sources of Energy** for the year 1996-97 with a cash prize of Rs. 30,000/- and citation from National Institute of Rural Development and Social Services.
- (ix) **Senior Associate (Three Times)** of International Centre for Theoretical Physics (ICTP), Italy, which is a rare distinction.
- (x) **Prestigious UNESCO Chair** in the field of Renewable Energy Education.
- (xi) **Prestigious IREDA Chair Professor** in Renewable Energy.
- (xii) **Certificate of Excellence** from All India Council of Technical Education (AICTE).

- (xiii) **Honoured by Prestigious Title “Man of the Year 1999”** for outstanding accomplishments in Science and Technology by American Biographical Institute, U.S.A.
- (xiv) **My Hindi Book entitled “Saur Urja aur Uske Upyog” was given first award and judged as the best book in Hindi by Ministry of Non-Conventional Energy Sources in the year 2000.**
- (xv) **Elected Fellow of Institution of Engineers (FIE)** for outstanding contribution in Energy.
- (xvi) **Elected Fellow of International Energy Foundation (IEF), Canada.**
- (xvii) **Certificate from Hon’ble Chief Minister of Madhya Pradesh, Shri Digvijay Singh** as the most outstanding scientist and administrator in Science & Technology in M.P.
- (xviii) Honoured by **Shiksha Rattan Award** for Meritorious services, outstanding performance and remarkable role in education in 2007 from India International Friendship Society.
- (xix) Received **Rajiv Gandhi Shiromani Award** for excellence in Energy Research and Services in 2007 from India International Friendship Society.
- (xx) Honoured by the title, **Best Citizens of India** in the year 2007 by International Publishing House, New Delhi.
- (xxi) Honoured by **Mother Teresa Excellence Award** in the field of Renewable Energy in 2012.

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