Achievements of Anil K. Rajvanshi

Dr. Anil Rajvanshi's pioneering rural development work for the last four decades has spanned a whole spectrum of areas affecting the lives of rural population: renewable energy-based cooking and lighting; power generation from agricultural residues; innovative water technologies; electric cycle rickshaws; and effluent treatment through the use of renewable energy. In this, ***he was the first person to promote the use of high technology for rural development – an idea that is in vogue nowadays.***

Born and raised in Lucknow, Dr. Rajvanshi did his bachelor's and master's degrees in mechanical engineering from IIT Kanpur and Ph.D. in US (financed by Govt. of India Scholarship) from University of Florida (UF), Gainesville, Florida. After receiving his PhD in 1979 from UF, he taught there for two and half years and then did something that young men of his age and education rarely did those days. He came back to India in 1981 to apply his training for developing rural India. Dr. Rajvanshi established the energy and sustainable development work at Nimbkar Agricultural Research Institute (NARI) at Phaltan, Maharashtra.

Main achievements and contribution to the society

1. He is the principal author (1996) of national policy on energy self-sufficient Talukas which is being managed by MNRE. This is the precursor of National Biomass power plant program and was probably the inspiration behind PURA program. This policy resulted in setting up of nearly 10,000 MW of biomass power capacity in India.
2. He pioneered in 1980s the concept of large-scale dew collection for drinking water. This has been copied world over for producing drinking water from air. Besides he also developed very unique water technologies and recently an innovative clean drinking water technology for rural schools.

3. Dr. Rajvanshi's group pioneered the development of electric rickshaws in 1990s. He was the first person to initiate a program of e-rickshaws in the country. Presently around 2.5 million e-rickshaws ply on Indian roads.
4. He developed a unique program of improving cooking and lighting technology for rural areas. Consequently, his group developed the multi-fuel Noorie lantern, multi-fuel Lanstove and the whole issue of rural lighting and cooking technology strategy.
5. He pioneered in late 1990s the concept of using ethanol as cooking and lighting fuel for rural areas. This strategy has been copied and promoted all over the world by institutes like World Bank and cooking stove Alliance of UN. A major program on ethanol stoves is underway in different countries of Africa.
6. He pioneered the concept of rural restaurants for poor in 2012. This probably led to setting up of Amma's kitchen in Tamil Nadu and Shiva Bhojan in Maharashtra. Presently these schemes provide about 60-70 million meals per year to the poor people in India.
7. In early 1990s, his group at NARI set up the world's largest program on production of ethanol from sweet sorghum. This led to NARI being the only Institute in India to be made a member of EEC sweet sorghum consortium and also helped start the national program on sweet sorghum. NARI has also pioneered syrup production from sweet sorghum.
8. He and his group pioneered the development of loose biomass gasification system. NARI was the first Institute in the world to develop 500 kW (thermal) sugarcane leaves and bagasse gasifier in 1995. This development helped spawn such development efforts all over India.
9. In 2002 he was the first to develop the concept of Spirituality + Technology = Sustainability + Happiness. He believes that this could be a new paradigm of development for the world. He has written innumerable articles on it and published books on this subject.
10. His efforts have shown how a small rural S&T Institute working on shoestring budget can pioneer technologies for rural India; and has inspired similar efforts in India and the world. His work at NARI, initiated in 1981, was probably the ***first example of rural tech start-up in India.***

Awards, publications, lectures, etc.

- In 1998, he became the second Indian to be inducted in the U.S. based Solar Hall of Fame.
- In 2001, Dr. Rajvanshi received the prestigious Jamnalal Bajaj Award for the use of science and technology in rural India from Dr. Manmohan Singh.
- His efforts led to NARI getting FICCI Platinum Jubilee Award in 2002 from the Prime Minister Shri Atal Behari Vajpayee.
- His work on ethanol lanstove was given the 2009 Globe Forum Award for sustainability research in Stockholm from HRH Crown Princess Victoria.
- In 2014, ***he became the first Indian*** to receive the Distinguished Alumnus Award of University of Florida (UF), Gainesville, Fla. USA.
- In January 2022 Govt. of India honored him with Padma Shri one of the highest civilian awards in India.
- In 2022 he received the Distinguished Alumnus Award of IIT Kanpur and was also named as one of the legends of IIT Kanpur.
- In 2024 his work was carried in a book "100 Great IITians – In the Service of the Nation".
- Recipient of 2025 Visionary Leadership Best Practice Award by Frost & Sullivan Institute, April 2025.

He has delivered prestigious endowed lectures and his achievements have been covered in mass media both nationally and internationally. He has lectured and given keynote addresses at many universities in U.S.A. and India. He regularly gives inspirational lectures to many students at prestigious institutes like IITs, NITs, IIMs, etc.

Dr. Rajvanshi has served on many Gov. of India (GOI) committees like those of Planning Commission, Advisory Board on Energy, MNRE, Maharashtra Electricity Regulatory Commission (MERC), etc. He is also a member of the Jamnalal Bajaj Awards committee. He has more than 350 publications, some of them in prestigious national and international journals, seven patents, seven books, and various chapters in books.

In 2014 he wrote about the human-interest story of his work on renewable energy at NARI and has made this book freely available on the web in the hope of inspiring youngsters to work on rural development.

Spirituality interests

Besides the technology work, Dr. Rajvanshi has great interest in spirituality and holistic development as evidenced by his books on the subject and his various writings which have appeared frequently in Speaking Tree (Times of India), Huffington Post, Thrive Global, South Asia Monitor and Marathi Newspaper Sakal.

In 2016 he published his autobiography and in 2019 his latest e-book "Exploring the Mind of God – How Technology guided by Spirituality can produce Happiness". Both these books are freely available on the web. Recently he has published two booklets; Deep Science in Patanjali Yoga Sutras; and What is Thought?

Dr. Rajvanshi believes that spirituality with high technology should be the mantra of India's development and practices what he preaches. Thus, he lives a simple and emotionally satisfying life in rural Maharashtra while developing high technologies for rural India. ***In essence, he is a spiritual engineer!***

Detailed CV (pdf)
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