



# Free Spirits Green Labs

A Renewable Energy Startup

## Tutor Profiles

### Nitin Saini

Nitin Saini, founder of **free Spirits Green Labs**, plays a key role in research and development of solar powered products and services.

- Established a global delivery model in order to provide these useful applications in rural parts of the country.
- With huge passion towards development of new and innovative applications of renewable energy, he started working on solar energy applications in 2011 under the esteemed guidance of Dr. Kumar Krishen.
- Associated with more than 20 villages and led many important projects for free Spirits Green Labs.
- The pilot project led by him in two villages in Uttar Pradesh, India, to provide ten families with free solar powered setups, was covered by Deccan Herald. In this project, he chose to have a two pronged approach to identify these designs for production. Prototypes were developed and deployed to get feedback regarding the satisfaction of their need. With this genuine feedback, prototype design was modified to get to the final production design.



[LinkedIn Profile](#)

### Education

- B.E - Electrical Engineering | Delhi College of Engineering ( University of Delhi)

### Publications

- Development of Fault Detection Methods in Transmission Lines; using Travelling Wave Fault Locator (GPS) System  
National Conference on **INNOVATIONS IN ENGINEERING**  
*Authors: Nitin Saini*
- Innovative Solar Power Technology Development for Rural Communities of India  
**IETE (Institution of Electronics and Telecommunication Engineers)** May 4, 2015  
*Authors: Nitin Saini, Kumar Krishen, Suruchi Jain*
- Innovative Solar Power Technology Systems for Rural India  
IICA (Indian Institute of Corporate Affairs) May 16, 2015  
*Authors: Nitin Saini, Kumar Krishen*



## Mohit Kumar

Research Analyst, free Spirits Green Labs (P) Ltd.

Mohit Kumar plays a vital role in development of products and services in the organization. Solar Micro Grid project for Rural India is his brain child.

Responsible for planning, calculations and overall structure of this project.

- He has been actively involved in solar energy based projects ever since.
- Successfully completed a project on 'Solar Powered Two Wheeler Vehicle' and with his team and working displayed model in AutoExpo 2013, Delhi.



He has been actively involved in imparting practical knowledge about applications of solar energy to students in various engineering colleges. He conducts workshops Solar Workshop Drive across the country. Since, students from various backgrounds attend the workshop, Mohit is really good in providing the base where everyone can understand the facts and then make use of that knowledge to develop their own solar powered applications during the practical sessions.

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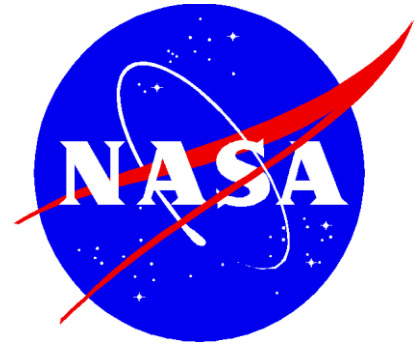
## Education

- Masters in Electronic Systems | **IISc Bangalore**
- B.E - Electrical Engineering | **Delhi College of Engineering** ( University of Delhi)



## Mentor Profile

Kumar Krishen, Ph.D., Fellow, SDPS, Fellow, IETE



Dr. Kumar Krishen is the ST/Senior Scientist / Lead Technologist for the Technology Transfer & Commercialization Office, NASA Johnson Space Center (JSC), Houston, Texas, responsible for developing strategies for joint research and technology projects and plans with industries, universities, other NASA centers, and government agencies. Dr. Krishen also serves as the JSC Innovation Champion to promote innovation at the Center. Dr. Krishen has served at Virginia Tech as University Fellow for Technology Transfer, Office of Special Initiatives, and Visiting Professor on a special NASA assignment. He also served as Adjunct Professor at Rice University. Currently, he holds the appointment of Honorary Professor for Delhi Technological University.

Dr. Krishen has served as JSC Chief Technologist and represented JSC as the Principal Technologist on the NASA Council on Science and Technology. His academic degrees are from Kansas State University (Ph.D. and M.S.-Phi Kappa Phi, Eta Kappa Nu & Sigma Xi honors), Calcutta University (M. Tech and B. Tech- Gold & Silver Medals), and Jammu and Kashmir University (B.A.- Highest Univ. Merit) in electronics, electrical engineering, radio physics, physics, and mathematics. Dr. Krishen taught and guided research at Kansas State University before joining Lockheed in 1969 as Staff Scientist. Dr. Krishen joined NASA in 1976 and has held key positions in Advanced Programs in Earth Observations, Science Payloads, Experiment Systems, Tracking & Communications, Mission Support, New Initiatives, and technology research and development.

Authoring more than 160 technical papers/reports/proceedings, Dr. Krishen is a Fellow of the Society for Design and Process Science (SDPS), Fellow of the Institution of Electronics and Telecommunication Engineers, and an Assoc. Fellow of American Institute of Aeronautics and Astronautics (AIAA). He is the recipient of many awards, medals, and commendations from universities, industry, and government organizations, and is listed in Who is Who in the World, Who is Who in America, Who is Who in Science and Technology, Men of Achievement, Personalities of America, and 2000 Outstanding People of the 20th Century and was commissioned "Honorary



Texan” by Texas Governor Rick Perry in 2001. Dr. Krishen was nominated by Governor George W. Bush and confirmed by the State Senate of Texas to the Texas Board of Licensure for Professional Medical Physicists in 1999 and continued to serve on this Board under Governor Perry’s administration till 2011. Dr. Krishen was awarded Bharat Samman, the highest honor given by the Non Resident Indian (NRI) Institute in 2006. The award was presented by His Excellency Sir Michael Arthur, KCMG, the British High Commissioner to India. He was awarded Hind Rattan, the highest award given by NRIW Society in 2008. The award was presented by Hon. Sushil Kumar Shinde, Union Minister for Power, Government of India.

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