

A black and white profile photograph of an elderly man with grey hair and glasses, looking towards the left. The image is high-contrast, with strong shadows on the right side of his face and bright highlights on the left. The background is blurred, showing vertical lines that could be window blinds or a wall.

DR. ASHOK JHUNJHUNWALA

THERE ARE NO DREAMS TOO LARGE...NO INNOVATION
UNIMAGINABLE & NO FRONTIERS BEYOND OUR REACH

- JOHN S HERRINGTON

When the rest of Chennai was battling an unprecedented power blackout for 3 whole days during the floods in December 2015, one 'Smart home' in IIT campus remained unaffected and powered through the difficult days.

This was the home of Dr. Ashok Jhunjhunwala, a distinguished professor of IIT Chennai. His home serves as a testimony to his team's latest work in the field of solar energy & direct current (DC), making green homes & offices a reality.

A similar model unit is on public display at the IIT Research Park. Prof. Jhunjhunwala passionately demonstrates a compact 125 W Solar panel fitted with a special battery comfortably powering 2 lights, fans, a television and a mobile charging unit – all at a meagre cost of Rs 15000. He explains with great conviction, the significance of huge power savings achieved by eliminating the AC – DC conversion, which is a whopping 50%.

Dr. Jhunjhunwala's dream is to reach at least 50 Million powerless homes in our country. And that dream is beginning to take shape with the pilot project successfully rolled out to homes located in the deserts of Rajasthan, on an off-grid mode.

Dr. Ashok Jhunjhunwala is the head of Telecommunications and Computer Networks (TeNet) at IIT Madras. He has always been driven by his desire to bridge the rural divide and help society by integrating multiple disciplines such as telecom, banking, electrical, education and financial services.

Back in the 1980s he worked on the idea of one telephone for every person targeting a network of 100 million telephone lines from the then existing base of 8 million domestic lines. A meter for the subscriber trunk dialing (STD) telephone booths, low cost Rural ATM project to serve villagers with limited access to financial services, fiber optics lab kits

(based on global best practices) for educators, are some of the many innovations that he and his team have built over the years. For his contributions, he was conferred India's prestigious Padma Shri award, in 2002.

Prof Jhunjhunwala strongly believes that economic viability is an important factor for wide adoption of any technology innovation, and thereby be successful in a large and diverse country as India. He further believes that a large number of such socially relevant innovations can be conceptualized, engineered and effectively rolled out through a collaborative model combining Academia and Industry.

**BY CHOOSING OUR PATH, WE
CHOOSE OUR DESTINATION -
THOMAS S MONSON**

Ashok Jhunjhunwala had a simple childhood, with Gandhian values at the core of his upbringing. His family business gave him an early exposure and keen awareness to the cost & economics of running an enterprise. With a natural flair for studies, he secured admission to the prestigious Indian Institute of technology (IIT) Kanpur and chose the Electrical stream. Apart from mainstream education, he took an active interest in the political and social landscape of the country in the context of those turbulent times. The intense debates that he engaged in his student days helped him broaden his horizon and ignited his thinking on the economic and social challenges before the nation. The divide on gender, economics, religion, geography etc. across the various sections of our society was pulling the nation back and he wondered how he could contribute in solving them.

With politics and education as the two possible paths in front of him, Dr. Jhunjhunwala chose the latter as the means to enable the country's transformation. After his post-graduation in the US from the University of Maine, he decided



to pursue a career in education. With 2 years of teaching assignments in the US behind him, Dr. Ashok felt that the time has come for him to return to India and live his dreams.

**"IF YOU CAN DREAM IT,
YOU CAN DO IT." - WALT DISNEY**

After joining IIT, Chennai as a professor, Dr. Jhunjhunwala was always looking for ways to improve the connect with industry. He recollects a challenge posed by a well-known company to repair a phased out sub-assembly of a complex machine. He fondly reminisces how the student community provided an ingenious solution using cost efficient parts from the local market.

Over the years, several such small and large projects inspired the formation of the IIT Research Park, which offers a formal structure for collaborative working, connecting industry personnel to the innovation outputs of high-tech research and development activities conducted at the premier institute.

From managing the finer details of sourcing the space at a cycling distance from the picturesque IIT Madras campus, to identifying and incubating promising technologies and business ideas, Dr. Ashok Jhunjhunwala has immersed his life in encouraging & mentoring students and entrepreneurs in their journey of driving innovation to successful commercial scaling.

Originally a 400 square feet non-descript space, the research park has grown to house over 50 R&D organizations and is poised to further expand to about 1.2 million square feet of bustling entrepreneurial activity.

Dr. Jhunjhunwala has also been instrumental in setting up the Rural Technology Business Incubator (RTBI) which has supported and launched over 50 companies focused on affordable and accessible technology for rural communities.



Dr. Jhunjhunwala admits that he derives inspiration from some simple principles, ideas, events and people he has come across in his life

In his drive to create an environment that fosters innovation and collaboration, the IIT Research park adopts a new age architectural theme of minimalism, connected spaces and off-beat decors.

**FIND YOUR PASSION AND
IT IS NO LONGER WORK - L A REID**

Dr. Jhunjhunwala admits that he derives inspiration from some simple principles, ideas, events and people he has come across in his life. He cites the example of Nirma washing powder product, which captured a major share of the Indian detergent market, focusing on cost efficiency as the primary

differentiator from competition. Such successes are a big learning experience for the professor.

Dr. Jhunjhunwala also mentions that he draws energy from his associates especially the youngsters who are bubbling with zeal and enthusiasm.

Ask him how he manages to balance his several roles and he is quick to point out that he enjoys each and every moment, cherishing the achievements, and their contribution to the nation's progress. He firmly believes that India is the right destination for the best and the brightest

minds with an abundance of opportunity and a budding infrastructure to support innovation and operational excellence.

As we close this invigorating discussion, Dr. Jhunjhunwala springs another surprise – a newly designed electric car! Sharing a drive in his electric car, he admits that it is the first version developed through collaboration with a leading automobile manufacturer. Rounding off that perfect drive through the verdant campus, this true Champion of Chennai seems close to realizing yet another powerful dream for our fuel starved economy!