



Automatic tariff controller in electricity meter

Student Award - Idea

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Background

Sathishkumar (17) has come up with an interesting idea to develop electricity meters, which would display the units of electricity consumed in terms of money so that one can keep a tab on expenditure of electricity and utilize this resource more effectively.

This first year student is currently pursuing the three-year Diploma course in Mechatronics from NTT, SPIC Campus at Tuticorin. His father is senior branch manager in State Transport Corporation, his mother: a homemaker and his sister is studying in eighth standard.

Blessed with a keen intellect and insatiable curiosity, Sathishkumar has been delving into the innards and working principles of machine and devices since childhood. His articles on scientific subjects and short stories have been published in various journals and publications.

His innovative ideas indicate a versatile problem-solving mind. He has won many awards and certificates for elocution, published articles and inno-

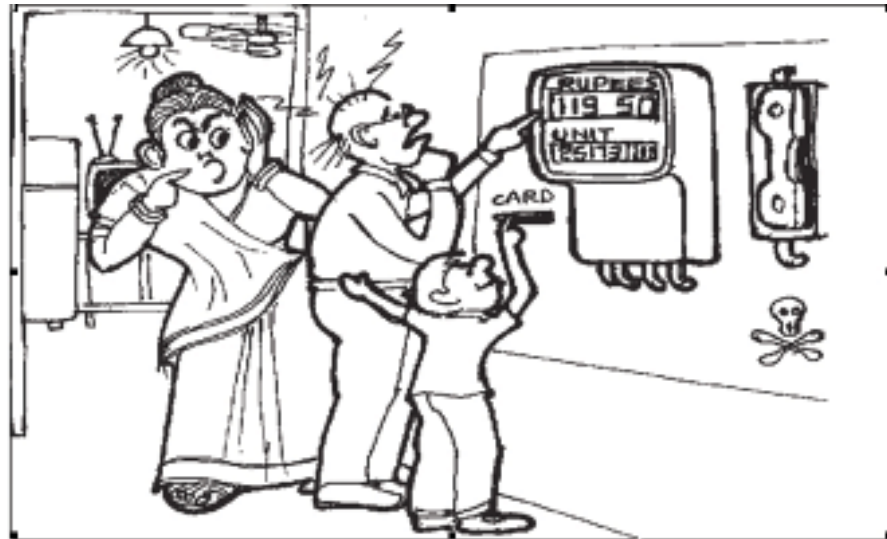
vations. He wants to continue building cost-effective, need-based solutions to peoples's problems and looks forward to the day when he can present his innovations to the President of India. His innovations include a unique calling bell, mini generator and oil pump set, cool beds, bore water pump cum exercising machine, wind-power based lighting system, Jolly walker for aged people, internet voting machine, alternative way of transmission of electricity and automatic tariff controller in electricity meters in domestic use.

Genesis

While developing innovations, he wrote to many people about his ideas, and got only one response. And that was from the President, Dr

A P J Abdul Kalam. He wanted to meet the President, but was advised by his friends and family, that he should first do notable work in the scientific field to measure up to the occasion.

He started in right earnest developing more innovations that addressed universal problems. That was



the path that led him to develop the automatic tariff control device for electric meters.

Innovation

The product idea recommends having the electric meter display of “power consumption in terms of money” (Rs) rather than power units (Kilowatt Hour), and having a “prepaid system” of paying for power units. This way, at any point in the month, the balance amount shown will influence the future consumption or repurchase of more units as needed.

This scheme has its benefits. First, since the meter reading for electricity consumption is in terms of money, anyone can understand and plan for future months and usage patterns.

Second, for the power company, collection of power tariff by deploying the prepaid SIM card style functionality is easier. It allows the ability to cut off power supply based on balance amount in card and restoration of electric supply after the card is renewed.

Apart from electricity meters, this concept can be used for any universal public utility, ranging from gas to water to telecommunications.

