

Interview with Nripen Kalita

by Nikhil Dixit - Tuesday, March 31, 2015

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1. Tell me something about your childhood.

-> I belonged to a cultivator family. With the support of my family I went for a further studies in Arjya Bidyapith. But due to some inevitable problems I was unable to complete my studies and went to Kolkata and worked as an electrician.

2. When and what inspired you to manufacture the interlocking brick making machines?

-> I belonged to a rural area where flood was a annual problem and even electricity problem was faced by the people. And these problem gave me the impetus to come up with an idea to use the force of water in a constructive way and produce electricity. Necessity is the mother of all inventions.

3. Who is your inspiration both personally and professionally?

-> My biggest support was my wife. She was understanding and supportive when I proposed the concept of the turbine.

4. Can you give us an insight into the workings of the zero head water turbine?

-> The model has a spiral offset of blades, much like Archimedean screw. It not only provides constant thrust to the system but also sufficient clearance between the blades, so that floating debris will not clog the blades. Also, the arrangement of the baffle operated pump acts as a submersible pump, thus facilitating the lifting of water. The turbine is placed under water, which rotates at a low speed but a high torque when water passes through it. A compound gear mechanism attached with an armature coil converts the kinetic energy of water to electric energy. A submersible pump is attached with the turbine set for irrigation purposes.

5. What are the scopes and limitations of the mechanism?

-> Every machines have its advantages and disadvantages and this machine also has its own scopes and imitations. The scope of this machines is that it uses less energy and it is accessible even in the remote area. Its limitations are that it might not be easy for people to assemble the machine without supervision and water used might be forest resources which might not be free.

6. How long did it take for the project to materialize?

-> It took 5 years for the project to come u. I started working on it from 1999 and it was completed by 2004. In 2004 I was honored with National Award by respected A.P.J. Abdul Kalam sir.

7. Right now what are the projects that you are associated with?

-> Right now I am working on the improvement of the turbine. I have also made some other innovations such as eri and muga reeling machines which uses solar energy to operate, hydro turbine, Transplanting devices, and over gas protector. I am also working to make use of gravitational energy which is sustainable. Scientist in different parts of the world are working on the concept but is not being able to achieve the desired result.

9. Countries like US have millions of innovations in the technical front. In India the number is less. What do you think maybe the reason?

-> Requirements of our people are small hence the needed push for innovations is less.

10. Would you give any message to our young readers?

-> We have to think beyond our enjoyment and modern day world. Without innovation there can never be progress and development in society. For the betterment of our life new things needs to be invented.

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