

Profile of Scientist

1. Name of the Scientist: Dr S.I. Anwar

2. Personal Biodata:

a) Position/Designation: Principal Scientist & I/c, Jaggery Unit

b) Contact Details:

i. ICAR Email ID: saiyed.anwar@icar.gov.in; jaggery.iisr@icar.gov.in

ii. Personal Email ID: sianwar@yahoo.co.in

iii. Mobile No.: 9450396065

c) Joining date in:

i. ICAR: 05.12.1989

ii. IISR:

d) Discipline and Specialization: Discipline: Farm Machinery & Power

Specialization: Sugarcane Processing for Jaggery Making; Solar Energy

e) Training/advance exposure in the area of work:

i) QIP Summer School on Solar Architecture organized jointly by Centre for Energy Studies, IIT, Delhi and All India Council for Technical Education (AICTE) during May 10-24, 1999.

ii) Summer School on Advances in Seeding and Harvesting Machinery organized by PAU, Ludhiana during May 21- June 19, 2001.

iii) Winter School on Wear Characteristics and Selection of Material for Agricultural Machinery at Central Institute of Agricultural Engineering, Bhopal during Sept. 04-24, 2001.

f) Contribution to the scientific advancement:

i) Handling of research projects

ii) Publication of research papers

iii) Publication of technical/popular articles



- iv) TV Talks
- v) Radio talks
- vi) Delivery of lectures
- vii) Organization of training and demonstration
- viii) Establishment of jaggery units at different locations

3. Future Planning of research (in bullets):

- i) Development of improved jaggery furnace with novel concepts
- ii) Value addition of jaggery
- iii) Improvement in juice extraction in sugarcane crushers
- iv) Automation/semi-automation of jaggery manufacturing process
- v) Development of improved gadgets of jaggery making and improving shelf life

4. Publications (best five):

- i. **Anwar, S.I.** and Tiwari, G.N. 2001. Evaluation of convective heat transfer coefficient in crop drying under open sun drying conditions. *Energy Conversion and Management (An International Journal)* 42:627-637.
- ii. **Anwar, S.I.** and Tiwari, G.N. 2001. Heat and mass transfer coefficients in a four tray crop drying system. *International Journal of Ambient Energy*. 22(1):48-56.
- iii. **Anwar, S.I.** 2010. Fuel and energy saving in open pan furnace used in jaggery making through modified juice boiling/concentrating pans. *Energy Conversion and Management*, 51: 360-364.

- iv. **Anwar, S.I.**, Singh, R.D. and Singh, J. 2011. Process development for production of jaggery (*gur*) with *aonla* as a natural source of vitamin C. *Journal of Institution of Engineers (India)*, 92(1):33-35.
- v. **Anwar, S.I.** 2010. Determination of moisture content of bagasse of jaggery unit using microwave oven. *Journal of Engineering Science and Technology*, 5(4):472-478.

5. Other relevant activities of Scientist:

- i) To act as I/c of Jaggery Unit
- ii) Human resource management for Jaggery Unit staff
- iii) Maintenance of Jaggery Unit and Ikshu Hub
- iv) Engagement in different committees constituted by the Director
- v) Training and demonstration and delivery of lectures, radio and TV talks related to the subject