

Profile of Scientist

1. **Name of the Scientist:** Syed Sarfaraz Hasan

2. **Personal biodata:**
 - a) **Designation:** Principal Scientist
 - b) **Joining date in ICAR:** 16th December, 1997
 - c) **Discipline and specialization:** Computer Application in Agriculture /
Decision Support System
 - d) **Training / advance exposure in the area of work:**

Attended CAS Training Programme on “Spatial and Non-Spatial Information Management and Mining in Agriculture” held at IASRI, New Delhi during 13th Nov, 2007 to 3rd Dec, 2007.
 - e) **Contribution to the scientific advancement:**
 - A framework for development of web based expert system with usability concern has been developed using Agent-Oriented methodology (MAS-CommonKADS), Model-View-Controller architecture and Optimization approaches.
 - Software agents for disorder diagnosis in Sugarcane crop and Knowledge base updation has been developed using agent-oriented technique and Model-View-Controller (MVC) architecture.
 - Sugarcane Field Management System has been developed to manage the data generated in sugarcane field experiments.
 - Developing data warehouse on sugarcane production system and a data mining software tool to explore and analyse the data stored in data warehouse.
 - State of art IISR Network and Internet facilities has been established at the institute.
 - Developed institute website (www.iisr.nic.in).
 - IISR INTRANET named as “IISR Information Services” has been developed and implemented.
 - Web-based application software has been designed and developed for storage and reporting of meteorological data recorded at the institute.

3. **Future Planning of research:**
 - Development of Decision Support System / Expert System in sugarcane cultivation
 - Mobile based Advisory Services for sugarcane farmers

- Data Warehousing and Mining for decision support to sugarcane / sugar industry
- Geographical Information System based analysis of sugarcane and sugar industry in India
- Enhancement of ICT facilities

4. Publications:

As First Author

1. Hasan S S, Isaac R K (2011). An integrated approach of MAS-CommonKADS, Model–View–Controller and web application optimization strategies for web-based expert system development. *Expert Systems with Applications (ELSEVIER)* 38 (2011) 417–428
2. Hasan S S, Bajpai P K, Kumar Rajesh, Sah A K, Kumar Sanjeev (2009). Knowledge management in sugarcane cultivation. *Journal of Communication Studies*. Vol XXVI – 3, pp 3-11
3. Hasan S S, Isaac R K (2008). ICT based information dissemination system to improve sugarcane crop productivity in India. *Sugarcane International*, Sept/Oct 2008, vol 26, No. 5, pp 22-25
4. Hasan S S (2008). Analytical exploration of sugarcane production data for decision support: Data warehouse approach. *Journal of Communication Studies*, Vol XXVI, August, 2008, pp 81-86
5. Hasan S S (2008). A framework for fast web download. *Indian Journal of Training & Development*. Vol XXXVIII No. 3, pp 43-51

As Co-author

1. Singh S N, Sah A K, Verma R P, Singh G K, Hasan S S (2009). Sugarcane and sugar production in Uttar Pradesh: An overview. *Agricultural Extension Review*, 21(2): 3-7.
2. Kumar Sanjeev, Hasan S S, Singh P K, Pandey D K, Singh J (2010). Interpreting the effects of genotype x environment interaction on cane and sugar yields in sugarcane based on the AMMI model. *Indian J. Genet.*, 69(3) 225-231.
3. Singh S N, Sah A K, Singh V K, Singh R K, Hasan S S (2009). Diversification of Rice (*Oryza Sativa L.*)– based crop sequences for higher production potentials and economic returns in India’s Central Uttar Pradesh. *Journal of Sustainable Agriculture*. 34 (2): 141-152
4. Singh S N, Sah A K, Singh R K, Prakash Om, Hasan S S (2011). Alternatives to rice-wheat cropping system in subtropical climatic conditions of India. *Tropical Agriculture*. Vol 88 (3). (In press)

5. Sah A K, Nishi, Hasan S S, 2009. .Information Communication Technology (ICT) for Women Empowerment. Journal of Communication Studies, 27(1): 52-57.

5. Other relevant activities of Scientist:

- Nodal Officer for PERMISnet project of ICAR
- Management of NKN connectivity
- Nodal Officer of “Intelligent Reporting System” (IRS) project of ICAR
- Nodal Officer for matters related to e-Governance / e-Connectivity
- Nodal Officer for ICAR Web Site
- Updation of Institute Web Site and Intranet
- Network Administration
- System Administration
- Maintenance of Internet & Email Connectivity
- Consultancy in ICT applications