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Designation: Professor

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Education: B.Tech., PAU, Ludhiana (1992); M.Tech., PAU, Ludhiana (1995); Ph.D., PAU, Ludhiana (2008)

Positions held: Assistant Professor, PAU Ludhiana (1996-2006), Assistant Professor (Selection Grade) (2006-2009), Associate Professor (2009-2012), Professor (2012-)

Field of Specialization: *Processing and Food Engineering*

Present Research Interests/Projects:

Research Interests: (Maximum upto three areas of interest)

- 1. Processing of fruits and vegetables
- 2. Establishment of agro processing complexes
- 3. Primary processing of food grains

Projects Accomplished:

- Optimization of process parameters for primary and secondary processing of commonly grown pulses in Punjab (UGC funded adhoc project, Co-PI)
- 2. Modelling of process dynamics of onion dehydration system
- 3. Evaluation and optimization of quick freezing for minimally processed mango (Mangifera indica L.)
- 4. Mathematical Modeling of osmo assisted freeze drying process for strawberries (*Fragaria vesca*)
- 5. Design and development of continuous pre milling treator for improved recovery from selected pulses
- 6. Effect of different precooling methods and storage conditions on shelf life and quality of pear (*Pyrus pyrifolia* (Burm. F) Nakai)

Selected Research Publications:

1. Solanki C, **Gupta S K** and Alam M S. 2022. Effects of pre milling microwave dosage on dehulling of chickpea and pigeon pea. *Agricultural Mechanization in Asia*, *Africa and Latin America* **53 (4)**: 7065-77. **(NAAS Rating 6.17)**

- 2. Solanki C, Gupta S K and Alam M S. 2021. Microwave assisted dehulling of pigeon pea (Cajanus Cajan). Agricultural Mechanization in Asia, Africa and Latin America 52(1): 2969-2977. (NAAS rating 6.17)
- 3. Solanki C, Gupta S K and Alam M S. 2021. Microwave-assisted pre milling of chickpea (Cicer Arietinum) for higher recovery. *Emirates Journal of Food and Agriculture* 33(11): 965-971. (NAAS rating 7.04)
- 4. Choudhary K, Alam M S, **Gupta S K** and Kumar Satish 2020. Efficacy of blanching pre-treatments and drying methods on quality of radish leaves powder. *Agric Res J* **57(4):** 590-597
- 5. Gill G S and **Gupta S K** 2018. Effect of various blanching pre-treatments on colour characteristics of carrots (*Daucus carota* L.) *Int. J of Chemical Studies* 2017; **5(5)**: 1228-1231. (**NAAS Rating 5.31**)
- 6. Chavan Prasad, Sharma Sajeev Rattan, Mittal Tarsem Chand, Mahajan Gulshan and **Gupta Satish Kumar** 2018. Effect of parboiling technique on physico-chemical and nutritional characteristics of basmati rice. *Agric Res J* 55(3): 490-499.
- 7. Jain Akshi, Sharma S R, Mittal T C and **S K Gupta** (2017). Selection of appropriate packaging film for modified atmosphere packaging of okra. *Green Farming* **8** (1): 250-53.
- 8. Bisht A S, Alam MS, Bhatia S and **Gupta SK** 2017. Studies on Development and Evaluation of Glycerol Incorporated Cellulose and Alginate Based Edible Films. *Indian J Agric Biochem* **30** (1), 67-72
- 9. Gajbhiye A, **Gupta S K**, Alam M S, Sharma S R and T C Mittal (2017) Design, development and evaluation of aloe vera leaf gel expulsion machine. *J Food Process Engg* (doi:10.1111/jfpe.12543): 1-11. (NAAS Rating: 6.75)
- 10. Kaur Manpreet, **Gupta S K**, Mittal T C and Sharma S R (2016) Influence of storage temperatures on the protein content of french beans (Phaseolus vulgaris L.). Asian J. Dairy & Food Res., **35(2)**, 164-167.
- 11. Parsad Chavan, Sharma S R, Mittal T C, Mahajan G and S K Gupta (2016) Optimization of parboiling parameters to improve the quality characteristics of Pusa basmati 1509. *J Food Process Engg* (doi:10.1111/jfpe.12454): 1-12.
- 12. Mondhe D S, Burbade R G and **S K Gupta** (2016) Effect of packaging materials on sensory evaluation of osmotically treated papaya (*Carica papaya L.*). Int J of Sci Env & Tech., **5(4)**, 2008-16.
- 13. Narang R, Sharma S R, Mittal T C, Jindal S K and **Gupta SK** 2017. Storage life enhancement of cherry tomato using modified atmosphere packaging. *The Bioscan* **12 (1)**: 209-14. (NAAS Rating: 5.26)

Awards/Honours/Distinctions:

 Awarded prestigious Commendation Medal as a recognition of professional services rendered towards the profession by Indian Society of Agricultural Engineers at 55th Annual Convention of ISAE held at Patna on November 23-25, 2021.

- Awarded the **Best Teacher Award by Indian Society for Technical Education** (ISTE) at Section Convention held at Jalandhar in October 2018.
- Recipient of 'Best Chapter Award' for the period 2015-16 for recognition of services rendered as Finance Secretary of 49th Annual ISAE Convention of ISAE held at CAET, PAU, Ludhiana in Feb 2015 and as Joint Secretary cum Treasurer of Punjab Chapter of ISAE awarded at OAU, Bhuvneshwar in the year 2016
- Recipient of 'Best Chapter Award' for the period 2011-12 as Joint Secretary cum Treasurer of Punjab Chapter of ISAE awarded by Indian Society of Agricultural Engineers at 47th Annual convention of ISAE held at Hyderabad in 2013.
- Awarded Appreciation Certificate by DDG (Agril. Extn), ICAR and Vice Chancellor, PAU in recognition of services rendered in organization of 7th National Conference of KVK's held at PAU, Ludhiana in 2012
- Recipient of 'Bharat Jyoti Award' awarded at Seminar on "Economic growth and National Integration" organized at Constitution Club, New Delhi on February 14, 2012
- Recipient of 'Best Chapter Award' for the period 2006-07 as one of the Executive member of Punjab Chapter (ISAE) by Indian Society of Agricultural Engineers at 43rd Annual convention of ISAE held at Ranchiin 2009.
- Faculty Mentor / Advisor of the College team COAETian Innovators, a team of 25 members of 2019 batch which won the Runners-up position in the National Level Competition - 'TIFAN 2022'. TIFAN is a national level student activity in competitive form - Technology Innovation Forum for Agricultural Nurturing.

REC recommendations:

Design and development of low cost *Aloe vera* leaf gel extraction machine for gel extraction was approved in the 264th meeting of Research Evaluation Committee (PAU) in 2017.

Membership/s of Scientific and Professional Societies:

- President of Alumni Association of College of Agricultural Engineering and Technology since November 2019.
- Executive Member (Joint Secretary cum Treasurer) of Punjab Chapter of Indian Society of Agricultural Engineers and Life member, Indian Society of Agricultural Engineers
- Life member, Indian Society for Technical Education