



Dr. M.K. Garg
Head

OBJECTIVES

Teaching, research & extension related to Processing & Food Engineering and Renewable Energy Sources

EMERGING/THRUST AREA

- Development of crop specific post harvest techniques for reduction in quantitative and qualitative losses of farm produce
- Testing and popularization of renewable energy technologies suitable for Haryana state
- Storage of grains

FACULTY MEMBERS IN THE DISCIPLINE OF PFE (as on 30.06.2017)

Sr. No.	Name	Designation	Place of posting
1	Dr. M.K. Garg	Professor & Head	PFE, Hisar
2	Dr. D.K. Sharma	Senior Scientist	PFE, Hisar
3	Dr. Yadvika	Asstt. Professor	PFE, Hisar
4	Dr. V.K. Singh	Asstt. Professor	PFE, Hisar
5	Dr. Kanika Pawar	Asstt. Scientist (FT)	PFE, Hisar
6	Er. J.M. Wadhwa	Consultant Faculty	KVK, Rohtak (Retd Oct.15)

- Ms. Indu and Mr. Manoj Nehra worked as Teaching Associate during 2016-17.

SCHEMES IN OPERATION (2016-17)

Sr. No.	Name of the Scheme	Scheme No.	Budget Allotted (Rs. Lakhs)	Expenditure (Rs. Lakhs)
1.	Teaching	B-VII-NP-Agril (renamed as T-8 Agri(B)-State)		
2.	Testing & popularization of small scale agricultural processing equipments for their adoption in Haryana State	C(a) APE-I-Plan-Agri.	16.29	11.47
3.	Testing & popularization renewable energy & energy efficient technology for adoption in Haryana State	C(a) APE-2-Plan Agri.	2.97	2.02
4.	AICRP on Post Harvest Engineering & Technology (AICRP on PHET)	C(b) APE-1-ICAR	59.47	62.71
5.	AICRP on Energy in Agriculture and Agro-based Industries (AICRP on EAAI)	C(b) APE-3-ICAR	25.79	24.76
6.	Studies on Determining Storage Losses of Food Grains in FCI and CWC Warehouses and to Recommend norms for Storage Losses in Efficient Warehouses Management	C(b) APE-8-ICAR	6.67	3.73

SCHEME-WISE STAFF POSITION (TEACHING & NON-TEACHING)
(as on 30.06.2017)

Sr. No.	Name of the sanctioned post	Pay band + GP	Name of the employee working against the post	Date of joining CCSHAU	Date of retirement
Name of the Scheme: T-8 Agri (B)-State					
1	Associate Prof	37400+10000GP	Dr.M.K.Garg (Prof.)	06.11.1985	30.09.2020
2	Asstt. Prof. *	37400+10000GP	Prof. Y.K. Yadav	14.11.1963	30.11.2023
3	Asstt. Prof.	15600+7000GP	Dr. Yadvika	22.08.2009	30.06.2036
4	Asstt. Prof.	15600+7000GP	Dr. V.K. Singh	22.08.2009	31.10.2037
5	Asstt. Prof.	15600+6000GP	Vacant	-	-
6	Clerk****	5200+1900GP	Vacant	-	-
7	Lab Asstt	5200+1900GP	Smt. Savita	25.04.1994	30.06.2034
8	Messenger	4440+1300GP	Vacant	-	-
9	Tracer	5200+2000GP	Vacant	-	-
C(b)APE-1-ICAR					
1	Sr. Scientist	37400+9000GP	Dr. D.K. Sharma	20.03.1989	30.11.2024
2	Asstt Sci.***	15600+6000GP	Vacant	-	-
3	Asstt Sci.(FT)	15600+6000GP	Dr. Kanika Pawar	25.07.2013	31.01.2042
4	Fitter	5200+1800GP	Sh. Mahadev	02.02.1996	29.02.2024
5	Mechanic	5200+2400GP	Sh Darshan Singh	01.04.1993	30.11.2016
6	Lab. Asstt.	5200+1900GP	Sh. Ravi Kant	09.06.2003	28.02.2045
7	Clerk	5200+1900GP	Vacant	-	-
8	Welder	5200+1800GP	Sh. Gopi Ram	01.04.1993	31.03.2028
C(b) APE-3-ICAR					
1	Asstt. Sci.**	15600+6000GP	Vacant	-	-
2	Lab. Technician	9300+3200GP	Vacant	-	-
3	Lab. Asstt.*****	5200+1900GP	Vacant	-	-
4	Helper	4440+1300GP	Vacant	-	-

* Dr. Y.K. Yadav joined on 10.03.2017 after availing lien and transferred to newly created Dept. of RBEE as Head on 25th April, 2017.

**Dr. Yadvika transferred from C(b)APE-3-ICAR to BVII(NP) Agril on 25.10.16

***Dr. V. K. Singh transferred from C(b)APE-1-ICAR to BVII (NP) Agril on 16.10.16

****Sh. Sajjan Kumar re-employed against the post

***** Shri Gopal worked as Lab Assistant upto 28.2.2017 and was promoted as SLA wef 1.3.2017

M. TECH. STUDENTS ON ROLL (2016-17)

Sr. No.	Name	Admn. No.
1	Sushant	2013AE02M
2	Ajay Mann	2014AE02M
3	Sandeep Kumar	2014AE03M
4	Vinay	2014AE04M
5	Raveena	2015AE02M
6	Ashwini S.C.	2016AE01M
7	Sachin	2016AE02M
8	Annu	2016AE04M

M.TECH. STUDENTS WHO COMPLETED THEIR DEGREES DURING 2016-17

Sr. No.	Name (Admn. No.)	Title of thesis	Name of the Advisor
1	Sushant (2013AE02M)	Techno-economic feasibility studies of a solar regenerated desiccant integrated seed drying system	Dr. Yadvika
2	Sandeep Kumar (2014AE03M)	Spent mushroom substrate utilization using different portable technologies	Dr. Yadvika
3	Vinay (2014AE04M)	Design and development of pedal operated maize sheller	Dr. V. K. Singh

STUDENTS' ACHIEVEMENTS (JRF/NET/ARS)

- Sunil cleared NET
- Arun Attkan cleared NET
- Nitin cleared NET

COURSES TAUGHT (2016-17)**UG Courses**

S.No.	Course No.	Course Title	Credit hours	Course Instructor
<u>SEMESTER-I</u>				
1	PFE 201	Engineering Properties of Biological Materials and Food Quality	2+1	Dr. V. K. Singh
2	PFE 301	Dairy and Food Engineering	2+1	Dr. D. K. Sharma/Indu
3	PFE 304	Protected Cultivation & PHT	1+1	Dr. D. K. Sharma/Indu
4	PFE 401	Food Processing Plant Design and Layout	2+1	Dr. Yadvika
5	PFE 402	Design and Maintenance of Green House	2 + 1	Dr. M. K. Garg
6	PFE 403	Food Packaging Technology	2 + 1	Dr. M. K. Garg/Dr. Kanika
7.	PFE 390	Summer Training-I	0+3	Dr. D. K. Sharma
8.	PFE 490	Summer Training-II	0+3	Dr. D. K. Sharma
9.	PFE 411	Project on Processing and Food Engineering - 1	2 + 1	Dr. M.K. Garg, Dr. D.K. Sharma, Dr. Yadvika, Dr. V.K. Singh, Dr. Kanika
8	Tutorial (NC)		1+0	Dr. D.K. Sharma, Dr. Yadvika & Dr. V.K. Singh
<u>SEMESTER-II</u>				
1	PFE 202	Crop Process Engineering	2+1	Dr. D.K. Sharma
2	PFE 203	Renewable Energy Sources	2+1	Dr. Yadvika
3	PFE 302	Agricultural Structures & Environmental Control	2+1	Dr. M.K. Garg/Dr. V.K.Singh

4	PFE 303	Drying and Storage Engineering	2+1	Dr. V.K. Singh
5	PFE 305	Renewable Energy (for B.Sc. Agril. Students)	2+1	Dr. Yadvika/Manoj Nehra
6	PFE 410	Hands on Training in Processing of Agricultural Produce	0+3	Dr. V.K. Singh/Dr. D.K. Sharma
7	PFE 412	Project on Processing and Food Engineering – II	0+3	Dr. M.K. Garg, Dr. D.K. Sharma, Dr. Yadvika, Dr. V.K. Singh, Dr. Kanika
8	Tutorial (NC)		1+0	Dr. D.K. Sharma, Dr. Yadvika & Dr. V.K. Singh

PG Courses

S.No.	Course No.	Course Title	Credit hours	Course Instructor
<u>SEMESTER-I</u>				
1	PFE 502	Engineering Properties of Biological Materials	2+1	Dr. V.K. Singh
2	PFE 505	Energy Management in Food Industries	2+1	Dr. Yadvika
3	PFE 513	Storage Engineering & Handling of Agricultural Products	2+1	Dr. V.K. Singh
4	PFE 599	Master's Research		PG Faculty
5	FST 505	Food Packaging	2+1	Dr. M.K. Garg/Dr. Kanika
<u>SEMESTER-II</u>				
1	PFE 501	Transport Phenomena in Food Processing	2+1	Dr. D.K. Sharma
2	PFE 503	Advanced Food Process Engineering	2+1	Dr. M.K. Garg
3	PFE 504	Farm Structures & Environmental Control	2+1	Dr. M.K. Garg
4	PFE 507	Food Processing Equipment and Plant Design	2+1	Dr. Yadvika
5	PFE 514/SST 507	Seed Drying, Processing & Storage	2+1	Dr. V.K. Singh
3	FST 515	Technology of Milk and milk products	2+1	Dr. Kanika
6	PFE 595	Industry/Institute Training	0+1	Dr. D.K. Sharma
7	PFE 599	Master's Research	0+3	PG Faculty
8	FST 503	Food Engineering	2+1	Dr. M.K. Garg
9.	PFE 591	Master's Seminar		Dr. D.K. Sharma
10.	NSS			Dr. D.K. Sharma

- Dr. D.K. Sharma performed duty as advisor of 4th year students (2013 AE 19 BIV to 2014 AE 36 BIV).
- Dr. V. K. Singh worked as Class Incharge of 3rd year students (2014 AE 1BIV to 2014 AE 34 BIV and 2015AE35B(L)II to 2015AE40B(L)II).
- Dr. V. K. Singh performed duty as a advisor of 3rd year students (2014 AE 18 BIV to 2014 AE 34 BIV and 2015AE35B(L)II to 2015AE40B(L)II).

New Projects submitted

Sr. No.	Title of the project	Principal Investigator/Co-PI	Amount (lakhs)	Funding agency	Status
	Development and popularization of eco-friendly technologies for paddy straw management	Dr. K. P. Singh, (Hon'ble Vice Chancellor) Dr. M.K. Garg (P.I.)	600	RKVY	Sanc tioned
2.	Skill Development Training on Sanitation for Rural Unemployed Youth for Livelihood by Self Employment	Dr. M.L. Bansal (Prof., Basic Engg.) (P.I.) Dr. Yadvika (Co-PI)	17	RKVY	Sanc tioned
3.	Utilization of spoilt wheat for the production of alcohol.	Dr. D.K. Sharma	10	Gap Filling Adhoc Research Project	Und er cons idera tion
4.	Preparation and Utilization of nano-formulations to impart rat repellent to poly woven bags.	Dr. D.K. Sharma	10	Gap Filling Adhoc Research Project	Und er cons idera tion
5.	Formulation of low cost baby food from cereal, fruit and nondairy ingredients.	Dr. Kanika Pawar	10	Gap Filling Adhoc Research Project	Und er cons idera tion
6.	Extraction and Characterization of bioactive compounds from Indian jujube for its potential use in functional food development.	Dr. Kanika Pawar	55	DST-SYST	Und er cons idera tion

RESEARCH ACHIEVEMENTS

- The power operated spice grinder was tested for its performance and cost economy. The machine capacity and machine efficiency were found to be 29.6 kg/h and 98.6 percent respectively at 8 percent moisture content. The operational cost of the machine was Rs. 76.5/h. The power operated spice grinder is well suitable for farmer as well as small entrepreneurs.



Spice Grinder



Chilli Powder

- The pedal operated maize sheller was tested for its performance and operational cost. The machine capacity, cleaned grain and damaged grain were found to be 54.6 kg/h, 98.62% and 4.3%, respectively at 9% moisture content of cobs. Operational cost of the machine was Rs 52.4/h. Thus, the pedal operated maize sheller is found to be suitable for farmer as well as small entrepreneurs.



Pedal operated Maize Sheller

- The performance of 1kW solar power plant was evaluated round the year during 2016-17. The Renewable Energy Lab of the department is completely operating on this 1kW plant. 1kW Solar power plant is worth installation as the cost of system would be recovered at the most in 4 years at its existing price and the life of the system is 25 years. So after 4years (i.e. for 21years) the system could be operated free of cost with little maintenance like regular cleaning of solar panels, setting of panels at proper angle etc. It can generate about 1200 units of electricity per year worth Rs. 11,000/- which is more than the interest of the same amount

kept in the banks. Also, it is an eco-friendly source of energy operating without any air, water or noise pollution.

- Greenway and SPRERI cookstoves were single burner high efficiency cookstoves. These were portable and consumed less fuel than traditional cookstoves. They could be a low cost replacement for traditional mud and stone stoves. No fuel processing was required for these cookstoves. Very less smoke emission and less cooking time were the salient features of these cookstoves. However, the smoke emission was different for different fuels. Improved cookstoves were suitable for wood, cattle dung cakes and wood chips but in case of coal, they consumed much fuel and efficiency was also very low. Thermal efficiency of side feeding SPRERI cookstove was better than top feeding one.



- The earthworm separation machine was found to be good for separating earthworms from the vermicompost as all earthworms were collected at the outlet and no earthworm was killed during the testing of machine even after a week of evaluation. It took very less time to separate the earthworms from vermicompost as compared to traditional method which takes several days.



Vermicompost preparation



Earthworm Separator

STUDENTS PROJECT WORK (UG) – 2017

Sr. No.	Name of the student (Admission No.)	Title of the Project Report	Advisor (Dr.)
1.	Amit Soni (2013AE09BIV)	Development of ber destoner	M.K. Garg
2.	Divakar Chaudhary (2013AE17BIV)	Cost economics of processing equipments	M.K. Garg
3.	Sumit Sheoran (2013AE47BIV)	Engineering intervention in existing value chain of Turmeric	M.K. Garg
4.	Sunil (2013AE48BIV)	Engineering intervention in the existing value chain of honey	D.K. Sharma
5.	Vikas Kumar (2013AE50BIV)	Engineering intervention in the existing value chain of carrot	D.K. Sharma
6.	Amian (2013AE07BIV)	Engineering intervention in the existing value chain of pearl millet	D.K. Sharma
7.	Yogesh Jamloki (2013AE53BIV)	Engineering intervention in existing value chain of kinnow	D.K. Sharma
8.	Aarzoo (2013AE01BIV)	Comparative performance evaluation of improved biomass cookstoves	Yadvika
9.	Ashish (2013AE13BIV)	Development of a solar operated kit for small domestic appliances	Yadvika
10.	Deepshikha (2013AE15BIV)	Techno economic evaluation of 1kW Solar Power Plant	Yadvika
11.	Maneesha (2013AE15BIV)	Performance evaluation of portable vermibed and portable earthworm separation machine	Yadvika
12.	Aditya Kalyan (2013AE04BIV)	Engineering intervention in existing value chain of Maize	V.K. Singh
13.	Vikram (2013AE51BIV)	Engineering intervention in existing value chain of Aloe Vera	V.K. Singh
14.	Shakti (2014AE59B(L)II)	Study of Weight Gain/Loss of Food Grains Stored in FCI	V.K. Singh
15.	Sanjeev Bruwa (2013AE42BIV)	Spray Drying of Soymilk and Sugarcane Juice	V.K. Singh

PUBLICATIONS (2016-17)

Research Papers

- V.K. Singh, Yadvika, D.K. Sharma, M.K. Garg and Kanika Pawar (2016). Performance evaluation of the Rotary type vegetable washer for Satawar (*Asparagus racemosus*). *Annals of Biology*, 32 (2):274-278.
- Sunil Kumar, Pavel Somavat, M.K. Garg, and R.B. Grewal (2016). Response of mold in stored wheat indifferent storage structures. *Green Farming*, 7(5):1181-1185.
- Nitin Kumar, A.K. Attkan, A.N. Malathi, D.K. Sharma and M.K. Garg (2016). Techno-economic and ergonomic assessment of pedal operated aonla pricking machine. *Environment & Ecology*, 34(4C):2283-2287.
- Anuradha Saini and M.K. Garg (2016). Effects of different pre-treatments on browning of frozen banana slices. *International J. of Processing and Post Harvest Technology*, 7(2):263-268.
- Suman, Neelam Khetarpaul and D.K. Sharma (2016). Assessment of physical characteristics of soybean seeds. *Annals of Agri-Bio Research* 21(2): 183-186, 2016.
- A.N. Arjun and M.K. Garg (2017). Development of expert system for the design of food grain storage bin and facility. *International J. of Agricultural Sciences*, 9(1):3594-3598.
- Sunil Kumar, Pavel Somavat and M.K. Garg (2017). RVA study of stored wheat under hermetic storage. *Environment and Ecology*, 35(1A): 313-317.
- Nitin Kumar, Kirandeep, D.K. Sharma and M.K. Garg (2017). Ergonomic Intervention in Design and Development of Pedal operated Aonla Pricking Machine. *Agricultural Engineering Today*, 41(2): 40-47.
- Kanika Pawar, D.K. Sharma, M.K. Garg. and V.K. Singh (2017). Studies on the development and storage of cocoa -mulhati guava based products. *Asian Journal of Dairy & Food Research*, 36(2): 143-149.
- Sushant Bhardwaj, Yadvika, M.K. Garg, V.K. Singh, and Naveen Kumar (2017). Performance evaluation of desiccant seed dryer for drying tomato seeds. *International Journal of Agricultural Science and Research (IJASR)*, 7(1):423-430.
- Rushikesh Patil, M.K. Garg and Kanika Pawar (2017). Optimization of osmotic dehydration of aloe vera using response surface methodology. *Environment and Ecology*, 35 (2): 614-620.
- Kanika Pawar and D.K. Thompson (2017). Changes in the shelf life parameters of dietary supplement during storage. *Current Research in Nutrition and Food Science*. 5(1):15-24.

Popular Articles

1. Kanika Pawar, Indu Panchal and M.K. Garg. 2017. Phall aur sabzi se nirmitt: naye muley virdhit utpad (*Value added products from fruit and vegetable wastes*). Haryana Kheti. 50(1):6-7.
2. Indu Panchal, Kanika Pawar and M.K. Garg. 2017. Tofu: Protein ka sarvotam vikalp. Haryana Kheti. 50(1):24-25.
3. Indu Panchal, Kanika Pawar and M.K. Garg. 2017. Biogas sanyantra: design, Sanchalan evam rakhrakhav. Haryana Kheti. 50(2):26-27.
4. Kanika Pawar, Indu Panchal and M.K. Garg 2017. Shahad ki gunvakta ka mulyankan

- (*Quality Analysis of Honey*). Haryana Kheti. 50(5):28, 30.
5. Darshana Duhan, Indu Panchal and M.K. Garg (2017). Kheti ki lagat kam karne ke upay. Haryana Kheti, 50(2): 24-25.
 6. Kanika Pawar, M.K. Garg, and Yadvika (2016). Phall aur sabzi praskaran apist ka sanrakshun (*Conservation of fruit and vegetable processing wastes*). Jigyasa Magazine (IIT Delhi) (Accepted).

Research Papers Published in Proceedings

- Pawar, Kanika, Sharma, D.K., Singh, V.K. and Garg, M.K. (2016). Storage of under reduced specifications of wheat (*Triticum aestivum*). Pp 527-530. In: Navarro S, Jayas DS, Alagusundaram K, (Eds) Proceedings of the 10th International Conference on Controlled Atmosphere and Fumigation in Stored Products (CAF 2016), CAF Permanent Committee Secretariat, Winnipeg, Canada held at New Delhi on November 6-11, 2016.
- Garg, M.K., Sharma, D.K., Singh, V.K., Pawar, Kanika and Kumar, Sunil (2016). Comparative evaluation of quality changes in stored wheat (*Triticum aestivum*) in hermetic bags and conventional storage methods. Pp 280-286. In: Navarro S, Jayas DS, Alagusundaram K, (Eds) Proceedings of the 10th International Conference on Controlled Atmosphere and Fumigation in Stored Products (CAF 2016), CAF Permanent Committee Secretariat, Winnipeg, Canada held at New Delhi on November 6-11, 2016.
- Sharma, D.K., Singh, V.K., Garg, M.K. and Pawar, Kanika (2016). Norms for storage gains/losses: A case study for wheat (*Triticum aestivum*) stored in FCI godowns in India. Pp 521-523. In: Navarro S, Jayas DS, Alagusundaram K, (Eds) Proceedings of the 10th International Conference on Controlled Atmosphere and Fumigation in Stored Products (CAF 2016), CAF Permanent Committee Secretariat, Winnipeg, Canada held at New Delhi on November 6-11, 2016.
- Singh, V.K., Sharma, D.K., Garg, M.K. and Singh, Amandeep (2016). Moisture content variations in stacks of paddy, rice (*Oryza sativa*) and wheat (*Triticum aestivum*): A case study. *Proceedings of the 10th International Conference on Controlled Atmosphere and Fumigation in Stored Products (CAF2016)*, New Delhi, India, 6-11 November 2016, Pp 84-87.

Abstracts Published

- Kanika Pawar, D.K. Sharma, V.K. Singh, M.K. Garg (2016). Storage of under reduced specifications of wheat (*Triticum aestivum*). p 158. In: Navarro S, Jayas DS, Alagusundaram K, (Eds) Abstracts of the 10th International Conference on Controlled Atmosphere and Fumigation in Stored Products (CAF 2016), CAF Permanent Committee Secretariat, Winnipeg, Canada.
- M.K. Garg, D.K. Sharma, V.K. Singh, Kanika Pawar, S. Kumar (2016). Comparative evaluation of quality changes in stored wheat (*Triticum aestivum*) in hermetic bags and conventional storage methods. p 79. In: S. Navarro, D.S Jayas, K. Alagusundaram, (Eds). Proceedings of the 10th International Conference on Controlled Atmosphere and Fumigation in Stored Products (CAF 2016), CAF Permanent Committee Secretariat, Winnipeg, Canada.
- D.K. Sharma, V.K. Singh, M.K. Garg, Kanika Pawar (2016). Norms for storage gains/losses: A case study for wheat (*Triticum aestivum*) stored in FCI godowns in India. P 151. In: S. Navarro, D.S Jayas, K. Alagusundaram, (Eds). Abstracts of the 10th International Conference on Controlled Atmosphere and Fumigation in Stored Products (CAF 2016), CAF Permanent Committee Secretariat, Winnipeg, Canada.
- Vijay K. Singh, Yadvika, D.K. Sharma, M.K. Garg, Kanika Pawar (2017). Performance

evaluation of pedal operated potato peeler. 51st Annual Convention of Indian Society of Agricultural Engineers (ISAE) and National Symposium on “Agricultural Engineering for Sustainable and Climate Smart Agriculture” at College of Agricultural Engineering & Technology, CCS HAU, Hisar (Haryana) from February 16-18, 2017.

- Sushant Bhardwaj, Yadvika, M. K. Garg and V. K Singh (2017). Seed drying using solar regenerated desiccant integrated seed dryer. 51st Annual Convention of Indian Society of Agricultural Engineers (ISAE) and National Symposium on “Agricultural Engineering for Sustainable and Climate Smart Agriculture” at College of Agricultural Engineering & Technology, CCS HAU, Hisar (Haryana) from February 16-18, 2017. p. 66
- Kanika Pawar, Nikita Yadav, M.K. Garg, Yadvika and V.K. Singh (2017). Development of model for quality assessment of onions. 51st Annual Convention of Indian Society of Agricultural Engineers (ISAE) and National Symposium on “Agricultural Engineering for Sustainable and Climate Smart Agriculture” at College of Agricultural Engineering & Technology, CCS HAU, Hisar (Haryana) from February 16-18, 2017. Pp. 67.
- Yadvika, M. K. Garg, V. K.Singh and S. Mukesh (2017). Energy auditing of a gaushala. 51st Annual Convention of Indian Society of Agricultural Engineers (ISAE) and National Symposium on “Agricultural Engineering for Sustainable and Climate Smart Agriculture” at College of Agricultural Engineering & Technology, CCS HAU, Hisar (Haryana) from February 16-18, 2017. Pp. 144.
- Vijay K Singh, M.K. Garg and Rajender Kumar (2017). Application of pulse electric field in food processing: a non-thermal technique . 51st Annual Convention of Indian Society of Agricultural Engineers (ISAE) and National Symposium on “Agricultural Engineering for Sustainable and Climate Smart Agriculture” at College of Agricultural Engineering & Technology, CCS HAU, Hisar (Haryana) from February 16-18, 2017. Pp. 89.
- Vijay K. Singh, M.K. Garg and D.K. Sharma (2017). Influence on physical properties of kinnow stored at ambient conditions. 51st Annual Convention of Indian Society of Agricultural Engineers (ISAE) and National Symposium on “Agricultural Engineering for Sustainable and Climate Smart Agriculture” at College of Agricultural Engineering & Technology, CCS HAU, Hisar (Haryana) from February 16-18, 2017. Pp. 110.
- Vijay K. Singh, Rajender Kumar, Yadvika and Kanika Pawar (2017). High pressure processing of foods: an overview. 51st Annual Convention of Indian Society of Agricultural Engineers (ISAE) and National Symposium on “Agricultural Engineering for Sustainable and Climate Smart Agriculture” at College of Agricultural Engineering & Technology, CCS HAU, Hisar (Haryana) from February 16-18, 2017. Pp. 123.
- Sushant Bhardwaj, Yadvika, M.K. Garg and V.K. Singh (2017). Seed drying using solar regenerated desiccant integrated seed dryer. 51st Annual Convention of Indian Society of Agricultural Engineers (ISAE) and National Symposium on “Agricultural Engineering for Sustainable and Climate Smart Agriculture” at College of Agricultural Engineering & Technology, CCS HAU, Hisar (Haryana) from February 16-18, 2017. Pp. 66
- Kanika Pawar, Nikita Yadav, M.K. Garg, Yadvika and V.K. Singh (2017). Development of model for quality assessment of onions. 51st Annual Convention of Indian Society of Agricultural Engineers (ISAE) and National Symposium on “Agricultural Engineering for Sustainable and Climate Smart Agriculture” at College of Agricultural Engineering & Technology, CCS HAU, Hisar (Haryana) from February 16-18, 2017. Pp. 67.
- R. Kumar, Yadvika, V.K. Singh and Kanika (2017). An integrated energy research challenges for sustainability development. 51st Annual Convention of Indian Society of

Agricultural Engineers (ISAE) and National Symposium on “Agricultural Engineering for Sustainable and Climate Smart Agriculture” at College of Agricultural Engineering & Technology, CCS HAU, Hisar (Haryana) from February 16-18, 2017. Pp. 144.

Practical Manual

- Singh, V.K., Garg, M.K. and Yadvika (2016). Engineering Properties of Biological Materials & Food Quality. Department of Processing & Food Engineering, COAE & T, CCSHAU, Hisar (pp: 100).

Training Manual

- Yadvika, Garg, M. K., Singh, V. K., Sharma, D. K., Pawar, Kanika (2017). Operation and Maintenance of Renewable Energy Appliances (in Hindi). Department of Processing & Food Engineering, COAE&T, CCSHAU, Hisar.

Lectures Delivered

1. M. K. Garg delivered a lecture during orientation program for the newly admitted B. Tech. students.
2. D.K. Sharma delivered lectures during a training programme for students on Protected cultivation of Horticultural Crops from 21st Nov. to 1st December 2016.
3. All faculty members delivered lectures on ‘**Renewable energy sources and application in agriculture**’ in Technology and Machinery Mela at Kajal Hedi on 9th February 2017.
4. Yadvika delivered lecture on ‘**Biogas plant – a boon for rural women and youth**’ in training on Operation and Maintenance of Renewable Energy Appliances’ for 50 rural women and unemployed youth of Haryana from 17-18th March 2017.
5. Yadvika delivered lecture in Workshop for ‘Capacity Building of Energy Professionals’ on ‘**Efficient renewable energy technologies, energy innovation and emerging technologies**’ by Renewable Energy Department, Haryana, Fatehabad on 2nd March 2016.

NEW EQUIPMENTS PROCURED

Sr. No.	Name of Equipment	Quantity	Amount (Rs)	Name of Scheme
1.	pH meter	1	19119	C(a)APE-2-Plan
2.	Cattle dung pot making machine	1	20000	C(a)APE-2-Plan
3.	Aloevera Gel Extractor, Ginger washer cum peeler, Apple corer	3	79500	C(a)APE-1-Plan
4.	Solar power meter	2	17921	C(a)APE-2-Plan
5.	Solar power meter with sensor	1	9372	C(a)APE-2-Plan
6.	Digital Thermometer	2	13421	C(a)APE-2-Plan
7.	Thermometer	1	6289	C(a)APE-2-Plan
8.	Hygrothermometer	1	8162	C(a)APE-2-Plan
9.	Sugarcane juice machine	1	42735	Dev. Asstt.-143-ICAR
10.	Grain vernier dial type	1	6700	C(a)APE-1-Plan
11.	Digital grain vernier	1	17800	C(a)APE-1-Plan
12.	Solar PV Training & Research System	1	199500	Dev. Asstt.-143-ICAR
13.	Biogas flow meter	2	12000	C(b)APE-3-ICAR
14.	Portable biogas analyser	1	75000	C(b)APE-3-ICAR
15.	Biogas balloon	2	18000	C(b)APE-3-ICAR
16.	Solar Mini Cold Storage	1	1300000	Dev. Asstt.-143-ICAR
17.	Kurkure Extruder	1	1600000	C(b)APE-1-ICAR
18.	Solar Biomass Shredder	1	500000	Dev. Asstt.-143-ICAR
19.	Improved Biomass cookstoves	10	13700	C(b)APE-3-ICAR
20.	Magnetic Stirrer	1	7578	C(b)APE-1-ICAR
21.	Micrometer	1	9473	C(b)APE-1-ICAR
		Total	39,59,219	

INFRASTRUCTURE DEVELOPED/ STRENGTHENED

- Renovation of Energy Lab
- Construction of Food Quality Analysis Lab.
- Pilot Plant for Kurkure Extruder

AWARD/HONOURS

- D.K. Sharma got Best Poster Award in National conference on Trends in Nanobiotechnology (NCTN-2016) in poster presentation, Nov. 29-30, 2016.
- D.K. Sharma was given appreciation letter by Associate Director (C&P) for taking keen interest in preparing Placement Brochure, summer internship.

PATENT FILED - Nil**NEW INITIATIVES TAKEN DURING THE PERIOD**

New projects to outside agencies were submitted. Labs were strengthened by purchasing new equipments.

New experiments have also been planned under State and ICAR schemes.

International/National Conferences, Seminars, Training/ Refresher Course/Winter/ Summer Schools Attended by Faculty Members

1. All faculty members attended 51st Annual Convention of Indian Society of Agricultural Engineers (ISAE) and National Symposium on “*Agricultural Engineering for Sustainable and Climate Smart Agriculture*” at College of Agricultural Engineering & Technology, CCS HAU, Hisar (Haryana) from February 16-18, 2017.
2. D.K. Sharma, V.K. Singh and Kanika Pawar attended “**10th International Conference on Controlled Atmosphere and Fumigation in Stored Products (CAF2016)**”, New Delhi, India, 6-11 November 2016
3. D.K. Sharma, V.K. Singh and Kanika participated in 32nd **Annual Workshop of AICRP on PHET** at CIPHET, Ludhiana from March 7-9, 2017.
4. D.K. Sharma and V.K. Singh attended one day workshop “**1st Horticulture Workshop**” organized by MHU Karnal at CSSRI, Karnal on May 18, 2017.
5. D.K. Sharma participated in summer school on “Approaches to Identification, Quantification and Reduction of Post-Harvest Losses in India” organized by Indian Council of Agricultural Research and held at ICAR-CIPHET, Ludhiana during 17 August- 06 September 2016
6. Yadvika attended XIXth Annual Workshop of the AICRP on Energy in Agriculture and Agro-based Industries (EAAI) from 31st January-2nd February 2017 held at MPUAT Udaipur.
7. Yadvika, V.K. Singh and Kanika Pawar participated in the workshop on “*Scientific/ Technical writing*” organized at CCS Haryana Agricultural University, Hisar on 18th - 19th April 2017.
8. Yadvika participated and acted as Session Coordinator in the National Conference on Trends in Nano-Biotechnology (NCTN-2016) from Nov. 29-30, 2016 at COBSH, CCSHAU Hisar.
9. Yadvika participated in the Refresher Course on ‘Advances in Computer Applications’ from July 7 to July 27, 2016 at DHRM, CCSHAU Hisar.
10. All faculty members attended Agricultural Officers’ Workshop-Rabi and Kharif at CCS HAU, Hisar.
11. Kanika attended two days workshop on Patents organized by DHRM, CCS HAU, Hisar
12. Yadvika, V.K. Singh and Kanika participated in workshop on Scientific/Technical Writing organized by National academy of Sciences, India (NASI) and CCS Haryana Agricultural University, Hisar, Haryana, India on 18th -19th April 2017.
13. All faculty members attended **National Conference** on Trends in Nanotechnology (NCTC-2016) held at CCS HAU, Hisar on 29-30th November 2016
14. All faculty members participated in **Industry Interface Meet** organized by ICAR-CIPHET, Ludhiana and AICRP-PHET, Hisar centre at Department of Processing and Food Engineering, CCS HAU, Hisar on 21st October 2016.

Posters Presented

1. Vijay K Singh, D. K. Sharma, M. K. Garg, Amandeep Singh (2016). Moisture content variations in stacks of paddy, rice (*Oryza sativa*) and wheat (*Triticum aestivum*): A case study. *Proceedings of the 10th International Conference on Controlled Atmosphere and Fumigation in Stored Products (CAF2016)*, New Delhi, India, 6-11 November 2016.
2. D.K. Sharma, V.K. Singh, M.K. Garg, Kanika Pawar (2016). Norms for storage gains/losses: A case for wheat (*Triticum aestivum*) stored in FCI/ godowns in India. *Proceedings of the 10th International Conference on Controlled Atmosphere and Fumigation in Stored Products (CAF2016)*, New Delhi, India, 6-11 November 2016.
3. Kanika Pawar, D.K. Sharma, V.K. Singh, M.K. Garg (2016). Storage of under reduced specifications of wheat (*Triticum aestivum*). *Proceedings of the 10th International*

Conference on Controlled Atmosphere and Fumigation in Stored Products (CAF2016), New Delhi, India, 6-11 November 2016.

4. M. Sadiq, A. Kumari, R. Gehlot, and Kanika Pawar (2016). Nanotechnology for Food Preservation. National conference on Trends in Nanobiotechnology (NCTN-2016). CCS HAU, Hisar. (India). 29-30 Nov, 2016. pp.SP122.
5. Kanika Pawar, D.K. Sharma, M.K. Garg and V.K. Singh (2016). "Storage of under reduced specifications (URS) wheat: A case study" in the 10th International Conference on Controlled Atmosphere and Fumigation at New Delhi on 7-11th November 2016.
6. Vijay K Singh, M.K. Garg and Rajender Kumar (2017). Application of pulse electric field in food processing: a non-thermal technique. 51st Annual Convention of Indian Society of Agricultural Engineers (ISAE) and National Symposium on "Agricultural Engineering for Sustainable and Climate Smart Agriculture" at College of Agricultural Engineering & Technology, CCS HAU, Hisar (Haryana) from February 16-18, 2017.
7. Vijay K. Singh, M.K. Garg and D.K. Sharma (2017). Influence on physical properties of kinnow stored at ambient conditions. 51st Annual Convention of Indian Society of Agricultural Engineers (ISAE) and National Symposium on "Agricultural Engineering for Sustainable and Climate Smart Agriculture" at College of Agricultural Engineering & Technology, CCS HAU, Hisar (Haryana) from February 16-18, 2017.
8. Vijay K. Singh, Yadvika, D.K. Sharma, M.K. Garg and Kanika Pawar (2017). Performance evaluation of pedal operated potato peeler. 51st Annual Convention of Indian Society of Agricultural Engineers (ISAE) and National Symposium on "Agricultural Engineering for Sustainable and Climate Smart Agriculture" at College of Agricultural Engineering & Technology, CCS HAU, Hisar (Haryana) from February 16-18, 2017.
9. Vijay K. Singh, Rajender Kumar, Yadvika and Kanika Pawar (2017). High pressure processing of foods: an overview. 51st Annual Convention of Indian Society of Agricultural Engineers (ISAE) and National Symposium on "Agricultural Engineering for Sustainable and Climate Smart Agriculture" at College of Agricultural Engineering & Technology, CCS HAU, Hisar (Haryana) from February 16-18, 2017.
10. Kritika Rawat, Anju Kumari, Kanika Pawar, Meenu Rooperia and Md. Sadiq (2017). Spray dried lassi powder. P 114. In: Proceedings of National Conference on Advances in food science and technology: Current Trends and Future Perspectives (AFST-2017). 24-25 March 2017.
11. Indu Panchal, Kanika Pawar and M.K. Garg (2017). Food Processing Interventions for sustainable agriculture: An overview. P 123. In: Proceedings of 51st Annual Convention of ISAE and National Symposium on Agricultural Engineering for Sustainable and Climate Smart Agriculture, Hisar (Haryana), India. (ISAE-2017/PDF/P-08)

Oral Presentations

1. M.K. Garg, D.K. Sharma, V.K. Singh, Kanika Pawar and Sunil Kumar (2016). Comparative evaluation of quality changes in stored wheat (*Triticum aestivum*) in hermetic bags and conventional storage methods. Pp 280-286. In: Navarro S, Jayas DS, Alagusundaram K, (Eds) Proceedings of the 10th International Conference on Controlled Atmosphere and Fumigation in Stored Products (CAF 2016), CAF Permanent Committee Secretariat, Winnipeg, Canada.
2. D.K. Sharma, V.K. Singh, M.K. Garg and Kanika Pawar (2016). Norms for storage gains/losses: A case study for wheat (*Triticum aestivum*) stored in FCI godowns in India. Pp 521-523. In: Navarro S, Jayas DS, Alagusundaram K, (Eds) Proceedings of the 10th International Conference on Controlled Atmosphere and Fumigation in Stored Products (CAF 2016), CAF Permanent Committee Secretariat, Winnipeg, Canada.
3. Kanika Pawar, D.K. Thompson and Indu (2017). Changes in physico-chemical, sensory

- and microbiological characteristics of dietary supplement during storage. In: Proceedings of 51st Annual Convention of ISAE and National Symposium on Agricultural Engineering for Sustainable and Climate Smart Agriculture, Hisar (Haryana), India. (ISAE-2017/PDF/ACP-12)
4. Kanika Pawar, Nikita Yadav, M.K. Garg, Yadvika and V.K. Singh (2017). Development of model for quality assessment of onions. p 67. In: Proceedings of 51st Annual Convention of ISAE and National Symposium on Agricultural Engineering for Sustainable and Climate Smart Agriculture, Hisar (Haryana), India. (ISAE-2017/PDF/ACP-13).
 5. Yadvika, M. K. Garg, V.K. Singh and S. Mukesh (2017) Energy auditing of a gaushala. 51st Annual Convention of Indian Society of Agricultural Engineers (ISAE) and National Symposium on “Agricultural Engineering for Sustainable and Climate Smart Agriculture” at College of Agricultural Engineering & Technology, CCS HAU, Hisar (Haryana) from February 16-18, 2017. Pp. 144.

EXTENSION WORKS INCLUDING TRAININGS ORGANIZED

1. All faculty members demonstrated Agro processing machinery and renewable energy based equipments in 1st Haryana Agri. Conclave and Expo-2017 on 22-23 March, 2017 at CCS HAU, Hisar.
2. All faculty members performed duty in Kisan Mela on 9-10 September, 2016 at CCSHAU, Hisar.
3. D.K. Sharma, V.K. Singh and Yadvika demonstrated the technology/equipments related to Post harvest Engineering & Technology (AICRP on PHET) & renewable energy based equipments (AICRP on EAAI) at adopted village Dubeta on 2nd August, 2016.
4. All faculty members demonstrated Agro processing & renewable energy machinery at Kajal Hedi on 9th February 2017.
5. Yadvika organized 2 days training programme on ‘**Operation and Maintenance of Renewable Energy Appliances**’ for 50 rural women and unemployed youth of Haryana from 17-18th March 2017.
6. Yadvika organized one day **training cum awareness programme** at the Angadwadi and school of adopted village of College of Agricultural Engg. & Technology, **Dubeta** on 2nd August 2016.
7. Yadvika organized One day **awareness cum demonstration camp** was organized at village **Shishwala**, district Hisar where about 15 villagers were honoured by distributing certificates for installation and successful operation of biogas plants.
8. Yadvika organized One day **training cum awareness programme** was organized at village **Landri**, district Hisar where about 10 villagers were honoured by distributing certificates for installation and successful operation of biogas plants.
9. Yadvika organized One day **training cum demonstration programme** was organized at village **Kaimiri**, district Hisar for creating awareness among the rural folks where about 5 villagers were honoured by distributing certificates for installation and successful operation of biogas plants.
10. Yadvika organized One day **awareness cum demonstration camp** was organized in Village **Panghal**, district Hisar where about 10 villagers were honoured by distributing certificates for installing biogas plants at their places.

ASSIGNMENTS AND DUTIES PERFORMED BY THE FACULTY MEMBERS

Dr.M.K.Garg

- Officer on Special Duty to Vice-Chancellor, CCS HAU, Hisar
- Coordinator, Project Monitoring Cell, CCS HAU, Hisar
- Chairperson of Investment Committee, CCS HAU, Hisar
- Member of Quinquennial Review Team (QRT) to review the work done by the Central Institute of Agricultural Engineering, Bhopal including its AICRPs (EAAI, UAE, FIM, ESA) and CRPs (FM&PF, EA) for the period of 2012-17.
- Organizing Secretary of 51st annual convention of Indian Society of Agricultural Engineers and National Symposium on the theme Agricultural Engineering for Sustainable and Climate Smart Agriculture from February 16-18, 2017.
- First Appellate Authority on behalf of CCSHAU, Hisar under RTI Act, 2005 upto October, 2017
- Member, Agricultural & Food Processing Sectional Committee, FAD 20, Bureau of Indian Standards, New Delhi
- Member of Academic Council, CCS HAU, Hisar
- Evaluated and submitted reports on five proposals from NRDC (National Research Development Corporation) for national awards
- Life member of Indian Society of Agricultural Engineers, Life member of Association of Food Scientists & Technologists
- Member, Board of Studies, College of Agricultural Engg. & Technology
- Member, Board of Studies, Center of Food Science & Technology
- Member of selection committee for selection to the post of Assistant Professor (Dairy Engg.), LUVAS on 15th July, 2016
- Worked as Professional Counselor to curb the menace of ragging in the college
- Participated in *Swachh Bharat* Campaign at CCSHAU, Hisar
- Evaluated comprehensive written exam of Ph.D. students of CFST
- Adviser to interview candidates for the post of Assistant Scientist (Agricultural Process Engineering) conducted by ASRB, Pusa on 21.10.2016
- Worked as National Expert Reviewer to technically review the projects of ICAR under Extramural funding on 19th December, 2016
- Member of the House Allotment Committee, CCS HAU, Hisar for the year 2016-17

The technical papers of the following national/international scientific journals were reviewed during 2016-17 by M. K. Garg:

- **JFST-D-16-00593, Journal of Food Science & Technology**
- **JFST-D-16-01285, Journal of Food Science & Technology**

Theses/Reports of following universities/institutes were evaluated by M. K. Garg :

- Thesis of Ph.D. student of MPUA&T, Udaipur evaluated and viva-voce conducted (July, 2016)
- Evaluated Industrial Training Reports & conducted viva-voce exam of M.Sc. (Food Tech.) students of GJU, Hisar
- Seven Thesis of M.Tech. students of PAU, Ludhiana evaluated and viva-voce conducted during 2016-17
- Thesis of M.Tech. students of NIFTEM, Kundli evaluated and viva-voce conducted

Dr D.K.Sharma

- Acted as a paper setter for NIFTEM
- Worked as an external examiner for the practical examination of M. Tech. (Food Technology), GJUS&T, Hisar
- External Examiner of Ph.D. students of Department of Food and Agricultural Process Engineering, Agricultural Engineering College and Research Institute, Tamil Nadu Agricultural University, Coimbatore
- Performed duty as Invigilator in Entrance Test (I)-2017 of CCSHAU for admission to B.Sc. 4 yr programme on 18.6.2017
- Worked as a Training Co-ordinator of COAE&T, CCSHAU, Hisar
- Store Incharge, Deptt. of Processing and Food Engineering
- Performed duty as Dean, PGS nominee for advisory committee of PG student, CCSHAU, Hisar.
- Coordinated and participated in Swachh Bharat Abhiyan.
- Represented Head of PFE department during technical programme meetings.
- Participated in Rabi and Kharif Agricultural Officers' Workshops.
- Represented AICRP on PHET during NABARD supported activity under Resource Supporting Agency (RSA) on 8 September, 2016.
- Faculty Coordinator for SRF/NET/ARS exam, and JRF exam.
- Incharge, Agro Processing Center, Deptt. of PFE, COAE&T, CCSHAU, Hisar.
- Performed duty in Orientation programme for freshers on 17th August, 2016.
- NSS Programme Officer, College of Agricultural Engineering and Technology, Pulse Polio Round (28-31st January, 2017), Yoga Day, Digital India Programme, Science forum activities
- Elected as Chairman, ISAE-Haryana and helped to organize 51st annual convention from 16 to 18th February, 2017 in CCS HAU, Hisar
- Elected as executive member of HAUTA – 2017.
- Coordinator, Village Adoption Programme (Unnat Bharat Abhiyan, Adarsh Gram Yojna and Swachh Bharat Abhiyan) of CoAE&T and helped in transfer of technologies in adopted village Dubeta (Hisar).
- Coordinator, Swachh Bharat Programme of the College.
- Coordinated thirty students (NSS volunteers) for various tasks during Inter-University Athletic Meet in CCS HAU- Hisar
- Member, Expert to evaluate National Horticulture Board's projects in Haryana
- Coordinated meeting and visit to show various activities/ projects of college of agricultural engineering for IAS and HCS officers

Dr Yadvika

- Prepared Annual Reports, Appraisal Reports, Research highlights, Annual Plan, Technical programme and Information for Newsletter for department
- Member, committee's of purchase, quotations, inspections and others of Department of Processing & Food Engineering and COAE. & T., CCSHAU, Hisar
- Did physical verification of the store and labs of Department of Processing & Food Engineering, COAE. & T., CCSHAU Hisar
- Acted as a paper setter for Entrance Exam, RVSKVV, Gwalior, M. P.
- Performed duty in Kisan Melas (9-10th September 2016) at CCS HAU, Hisar
- Incharge, College Library, COAE & T., CCSHAU, Hisar
- Member of Departmental Purchase Committee for the Basic Engg. Section.
- Member, College Disciplinary Committee, COAE & T., CCSHAU, Hisar.
- Member College Women Cell, COAE & T., CCSHAU, Hisar
- Member College Magazine Committee, COAE & T., CCSHAU, Hisar

- Member College Students Placement & Trainings Committee, COAE & T., CCSHAU, Hisar
- Executive member, ISAE, Haryana Chapter
- Member, DSW Committee for Extracurricular Activities
- Incharge, Renewable Energy Lab, Department of Processing & Food Engg, COAE&T, CCSHAU, Hisar
- Member of NISAGENET & AICTE at the college level committee
- Performed duty as Dean, PGS nominee for advisory committee of PG student, CCSHAU, Hisar
- Regularly participated in Swachh Bharat Abhiyan
- Acted as Session Coordinator in National Conference on Trends in Nanobiotechnology (NCTN – 2016), Dept. of MBB & B, CCSHAU Hisar
- Acted as external examiner for M.Sc., Food Technology, GJU, Hisar

Dr V.K. Singh

- Worked as a Sports Co-ordinator of COAE&T, CCSHAU, Hisar
- Acted as a paper setter for Ph.D. (Agricultural Engineering) examination, course “Texture and Rheological properties of food”, JNKVV, Jabalpur
- Acted as a paper setter for M.Tech. (Agricultural Engineering) examination, course “Energy Management in Food Processing”, JNKVV, Jabalpur
- Acted as a paper setter for B.Tech. (Agricultural Engineering) examination, course “Dairy & Food Engineering”, JNKVV, Jabalpur
- Acted as a paper setter for B.Tech. (Agricultural Engineering) examination, course “Food Packaging technology”, JNKVV, Jabalpur
- Acted as a paper setter for B.Tech. (Agricultural Engineering) examination, course “Engineering Properties of Biological Materials and food Quality”, JNKVV, Jabalpur
- Acted as a paper setter for B.Tech. (Agricultural Engineering) examination, course “Crop Process Engineering”, JNKVV, Jabalpur
- Worked as an external examiner for the practical examination of M. Tech. (Food Technology). GJUS&T, Hisar
- Worked as an external examiner for the practical examination of B. Tech. (Food Technology). GJUS&T, Hisar
- Acted as a paper setter for B.Sc. (Ag) examination, course “Protected Cultivation and Post Harvest Technology”, RAU, Samastipur
- Acted as a paper setter for B.Sc. (Ag) examination, course “Protected Cultivation and Post Harvest Technology”, CSK HPKV, Palampur
- Acted as evaluation of answer book for B.Sc. (Ag) examination, course “Protected Cultivation and Post Harvest Technology”, CSK HPKV, Palampur
- Performed duty as Invigilator in Entrance Test (I)-2017 of CCSHAU for admission to B.Sc. 4 yr programme on 18.6.2017
- Physically verified the stores of transportation office for the year 2017-18
- Performed duty as Dean, PGS nominee for advisory committee of PG student, CCSHAU, Hisar.
- Regularly participated in Swachh Bharat Abhiyan.
- Performed duty as advisory committee member of PG student Mr. Vinod Kumar, 2016AE3D
- Member of Departmental purchase committee for the Department of Farm Machinery & Power Engineering
- Member in committee’s of purchase quotations, inspections, condemnations for the different Department of COAE&T, CCSHAU, Hisar.

- Physically verified the stores of the Department of Processing and Food Engineering, COAE&T, CCSHAU, Hisar
- Incharge, Food Quality Assurance Lab and Fruits, Vegetables Processing Pilot Plant Lab and Teaching lab of PFE, COAE&T, CCSHAU, Hisar.
- Performed vigilance duty in Hostel No. 1 (Kailash Hostel)
- Performed duty in Orientation programme for fresher on 17th August, 2017
- Performed duty in 3rd International Yoga Day 21.6.2017

Dr Kanika Pawar

- Expert for evaluating the research synopsis of M.Sc. (FST) students.
- Chairman Press and Media Committee at College Level.
- Member of NISAGENET & AICTE at the college level committee.
- Nominated to look after the work of ICAR grant assistance by Dean, COAET.
- Physical Verification of Stores SWE and Computer Section.
- Invigilator duty in Entrance Test (II)-2016 in COHS on 3rd July 2016 for B.Sc. Agr.
- Duty as student advisor during the registration of 1st year B. Tech (Agril. Engg.) students on 4th and 5th August 2016 at COAE& T, CCS HAU.
- Member of Invitation and Press & Media Committee for celebration of Engineer's Day 2016 on 15th September 2016
- Participated as Convener in different events for celebration of World Food Day 2016 on 22nd October 2016 jointly organized by CFST, CCS HAU and AFST Hisar chapter.
- Participated as member in Registration and Invitation Committee & Publicity Committee in 51st Annual Convention of ISAE (Feb 16-18 2017), at COAE & T, CCS HAU, Hisar.

List of Thesis Submitted by M.Tech. Students

Sr. No.	Name	Admission No	Title	Name of Advisor
1	Rajeev Gupta	96AE86M	Mathematical modeling for environment conditions in an evaporative cooling chamber	Dr. M. K. Garg
2	Ravi Gupta	97AE116M	Study of milling factors on basmati paddy (Taraon Basmati & Basmati 370) for head rice recovery	Er. M.C. Kashyap
3	Sandeep Mann	97AE117M	Design and development of knowledge base seed storage information system	Dr. M. K.Garg
4	Pawan Veer	98AE124M	Development and testing of straw densification machine	Er. Surjeet Jain
5	Pratima Bajaj	98AE125M	Investigation of mass transfer during osmotic dehydration of button mushrooms (<i>Agaricus bisporus</i>)	Er. Surjeet Jain
6	Ramachandra, C.T.	2000AE135M	Equilibrium moisture content and drying characteristics of selected medicinal plants	Er. Surjeet Jain
7	Preeti Panda	2000AE137M	Osmo-air drying of grapes for raisin preparation	Dr. M.K.Garg
8	Anil Kumar	2000AE136M	Development of an integrated energy system for a goshala complex	Er. Surjeet Jain
9	Manjunatha	2001AE229M	Osmo-convective dehydration of cauliflower	Er. J. M. Wadhwa
10	Ritu Raj Mehta	2002AE110M	Comparative evaluation of different drying methods to dry liquorice (mulhatti)	Er. Surjeet Jain
11	Vijay Kumar Singh	2002AE111M	Effect of packaging materials on the shelf life of moisture sensitive foods	Dr. M. K.Garg
12	Balwan Singh	2002AE108M	Comparative evaluation of different drying methods for drying of kasuri fenugreek leaves	Er. M.C. Kashyap
13	Raj Kumar	2003AE208M	Drying behaviors of rapeseed (toria) under thin layer conditions	Er. Surjeet Jain
14	Sujata Nayak	2003AE210M	Simulation and optimization of a solar dryer	Dr. M. K.Garg
15	Sipna Deshmukh	2005AE114M	Effect of edible coatings & packaging method on shelf life of button mushroom (<i>Agaricus bisporus</i>)	Er. Surjeet Jain
16	Md. Mahfooz Aalam	2006AE137M	Development and testing of packages for transportation of guava	Dr. M.K.Garg
17	Indu	2006AE136M	Optimization of process parameters of soymilk and Tofu production unit	Er. Surjeet Jain
18	Kailash Bhatt	2007AE80M	Development of a steam blancher for vegetabes	Dr. M.K.Garg
19	Yogita	2007AE82M	Method of extraction of anthocyanin pigments from red rose	Er. Surjeet Jain
20	Yogender Singh	2008AE96M	Comparative performance of evaporative cool chambers using alternative materials for storage of fruits and vegetables	Dr. Y. K. Yadav

21	Rajeshwari Patti	2008AE97M	Effect of moisture content on physical properties of coarse grains	Er. Surjeet Jain
22	Chavan Sandeep Pandhari	2009AE208M	Development of a dehumidified air dryer	Dr. M. K.Garg
23	Abhishek Shukla	2009AE209M	Development of paddle operated petha (ashgourd) pricking machine.	Dr. D. K. Sharma
24	Sunil	2009AE210M	Optimization of biogas slurry use for digestion of an admixture of kitchen waste & cattle dung	Dr. Y. K. Yadav
25	Aarjoo	2010AE170M	Performance evaluation of solar tunnel dryer for round the year use	Dr. Yadvika
26	Nitesh	2010AE172M	Development of solar regenerated desiccant dryer	Dr. Y.K. Yadav
27	Patil Rushikesh Ashok	2010AE173M	Mass transfer kinetics of aloe vera during osmo-convective dehydration	Dr. M.K. Garg
28	Anarase Dattatray Arjun	2011AE124M	Development of decision support tool for design of commercial grain storage	Dr. M.K. Garg
29	Arun Kumar	2011AE125M	Development of a desiccant based food drying system	Dr. Y.K. Yadav
30	Sunil Kumar	2012AE04M	Comparative evaluation of quality changes in stored wheat in hermetic silo bags and conventional methods	Dr. M.K. Garg
31	Nitin Kumar	2012AE01M	Design, development and performance evaluation of foot operated aonla pricking machine	Dr. D.K. Sharma
32.	Sushant Bhardwaj	2013AE02M)	Techno-economic feasibility studies of a solar regenerated desiccant integrated seed drying system	Dr. Yadvika
33.	Vinay	2014AE04M	Design and development of pedal operated maize sheller	Dr. V. K. Singh
34.	Sandeep	2014AE03M	Spent mushroom substrate utilization using different portable technologies	Dr. Yadvika
35.	Raveena	2015AE02M	Energy use pattern of pearl millet production and processing	Dr. Yadvika

Address and Telephone number of staff members

S.No.	Name (Dr/Mr./Mrs.)	Address	Date of birth	Telephone	E-mail
1	M.K.Garg	8/15, New Campus, HAU	17.09.60	9416674060	mkgarg.hau@gmail.com
2	Y.K.Yadav	On deputation till March 17	14.11.63	9888580366	profykyadav@yahoo.com
3	D.K.Sharma	10/110, Farm Colony, HAU	04.11.64	9416846103	dksharma.hau@gmail.com
4	Yadvika	10/2, Old Campus, HAU	06.06.76	9812166028	yadvika6@yahoo.co.uk
5	V.K.Singh	10/107, New Campus, HAU	20.10.77	9992661719	vijurss@gmail.com
6	Kanika Pawar	10/48, Old Campus, HAU	28.01.82	9813644028	kanikapawar@gmail.com
7	Rakesh Kumar	1803, Sector 16-17	15.05.57	9416112900	
8	Shri Gopal	Luxmi Vihar Colony	01.04.61	9812454946	
9	Savita	B-11, WWH, HAU	02.06.74	9996259026	
10	Mahadev	VPO Dhigtana	03.02.64	9466611905	
11	Gopi Ram	178, Inqlab Friends Colony, Azad Nagar	20.03.68	7027275656	
12	Ravi Kant	H.No. 12, Block C, New Model Town	20.02.85	9728753232	
13	Naveen			9466489026	

List of retired faculty members

S. No.	Name (Dr./Er.)	Present address	Date of retirement	Telephone number	E-mail
1	M.C. Kashyap	HIG-292, Sector 71, Mohali	30.06.06	9855600684	
2	Rati Ram Gupta	13, Geeta Colony, Salarpur Road, Kurukshetra	30.06.07	9315867908	
3	Surjeet Jain	4, PLA, Hisar	30.09.10	9416397556	

Roster of Head of Department

S.No.	Name	Date	
		From	To
1	Dr. D.P. Kataria*	March, 1996	25.02.1998
2	Dr. R.R. Gupta	26.02.1998	26.02.1999
3	Dr. D.P. Kataria*	27.02.1999	04.05.1999
4	Er. Surjeet Jain	05.05.1999	04.05.2002
5	Prof. J.M. Wadhwa	05.05.2002	28.05.2004
6	Dr. Pratap Singh*	29.05.2004	30.10.2007
7	Dr. Y.K. Yadav	31.10.2007	30.10.2011
8	Dr. M.K. Garg*	31.10.2011	22.10.2012
9	Dr. Saroj Jeet Singh*	23.10.2012	31.12.2012
10	Dr. A.K. Goel*	01.01.2013	31.05.2013
11	Dr. M.K. Garg	01.06.2013	Continuing

*Additional charge as Dean, COAE&T

COLLEGE OF AGRICULTURAL ENGINEERING AND TECHNOLOGY

AT A GLANCE

HARYANA AGRICULTURAL UNIVERSITY ESTABLISHED	2ND FEBRUARY, 1970
DEPARTMENT OF AGRICULTURAL ENGG. ESTABLISHED	2ND FEBRUARY, 1970
B. TECH. (AGRIL. ENGG.) PROGRAMME STARTED	AUGUST, 1987
COLLEGE OF AGRIL. ENGG. AND TECHNOLOGY ESTABLISHED	MARCH, 1992
COLLEGE OF AGRIL. ENGG. AND TECHNOLOGY INAUGURATED	AUGUST, 1992
M. TECH. (AGRIL. ENGG.) PROGRAMME WITH SPECIALIZATIONS IN FPM AND SWE STARTED	AUGUST, 1993
DEPARTMENT OF FARM POWER & MACHINERY AND DEPARTMENT OF SOIL & WATER ENGINEERING ESTABLISHED	SEPTEMBER, 1993
DEPARTMENT OF AGRIL. PROCESSING AND ENERGY ESTABLISHED	MARCH, 1996
M. TECH. (AGRIL. ENGG.) PROGRAMME WITH SPECIALIZATION IN AGRIL. PROCESSING AND FOOD ENGINEERING STARTED	AUGUST, 1996
SECTION OF BASIC ENGINEERING ESTABLISHED	OCTOBER, 1996
DEPARTMENTS RENAMED AS - FARM MACHINERY & POWER ENGINEERING - PROCESSING & FOOD ENGINEERING	SEPTEMBER, 2010
DEPARTMENT OF RENEWABLE AND BIO-ENERGY ENGINEERING AND DEPARTMENT OF BASIC ENGINEERING ESTABLISHED	March, 2017

Teaching Load of the Department

COURSE NO.	CREDIT HOURS	CONTACT HOURS
Semester -I		
PFE 201	2+1	4
PFE 301	2+1	4
PFE 304	1+1 (3 Section)	15
PFE 390	0+3	1
PFE 401	2+1	4
PFE 490	0+3	1
PFE 402	2+1	4
PFE 403	2+1	4
PFE 411	0+3 (18 students)	18
PFE 502	2+1	4
PFE 504	2+1	4
PFE 506	2+1	4
PFE 510	2+1	4
PFE 511	2+1	4
PFE 591	1	2
PFE 592	0+1	2
PFE 595	0+1	1
PFE 599	Master's research (6 students)	6
Total		86
Semester II		
PFE 202	2+1	4
PFE 203	2+1	4
PFE 302	2+1	4
PFE 303	2+1	4
PFE 305	1+1 (3 sections)	15
PFE 391	0+1	2
PFE 410	0+3	1
PFE 412	0+3 (18 students)	18
PFE 501	2+1	4
PFE 503	2+1	4
PFE 505	2+1	4
PFE 507	2+1	4
PFE 508	2+1	4
PFE 509	2+1	4
PFE 512	2+1	4
PFE 513	2+1	4
PFE 514	2+1	4
PFE 591	1	2
PFE 592	0+1	2
PFE 599	Master's research (6 students)	6
Total		98

Teaching load during semester –I = 86 contact hours per week
Teaching load during Semester – II = 98 contact hours per week
Total Teaching Load = 86+ 98 = 184 contact hours

Average Teaching load per semester = $184/2 = 92$ contact hours