

Sustainable Food Security through Technological Interventions for Production, Processing and Logistics is an interdisciplinary project initiated by IIT Kharagpur by involving different departments .

List of Departments, PIs AND Co-PIs

DEPARTMENT	WP	NAME OF THE PROJECT	PRINCIPAL INVESTIGATOR (PI)	(Co-PI)
Industrial and Systems Engineering (ISE)	1.1	Strategic Modelling for Sustainable Food Security	Prof. B Mahanty (bm@hijli.iitkgp.ernet.in)	Prof. M K Tiwari (mktiwari9@iem.iitkgp.ernet.in)
	1.2	Procurement, Collection and Storage of food grains	Dr. S K Kumar (srikrishna@iem.iitkgp.ernet.in)	Prof. M K Tiwari (mktiwari9@iem.iitkgp.ernet.in)
	1.3	Transportation management to implement NFSA	Dr. J Thakkar (jt@iem.iitkgp.ernet.in)	Dr. J K Jha (jkjha@iem.iitkgp.ernet.in)
	1.4	Development of decision support model for requirement analysis and stock replenishment decisions for efficient distribution of food grain	Prof. S P Sarmah (spsarmah@iem.iitkgp.ernet.in)	Prof. M Jenamani (mj@iem.iitkgp.ernet.in)
	1.5	Information and communication technology (ICT) and waste control in Logistics	Prof. M Jenamani (mj@iem.iitkgp.ernet.in)	Prof. S P Sarmah (spsarmah@iem.iitkgp.ernet.in) Prof. M K Tiwari (mktiwari9@iem.iitkgp.ernet.in)
Agricultural and Food Engineering (AGFE)	2.1.1	Sensor based nutrient management	Dr. V.K Tewari (vktfeb@agfe.iitkgp.ernet.in)	--
	2.1.2	Low energy requiring tillage implements for power tillers and tractors	Dr. H Raheman (hifjur@agfe.iitkgp.ernet.in)	--

	2.1.3	Seed drill with flow detecting sensors	Dr. H Raheman hifjur@agfe.iitkgp.ernet.in	--
	2.1.4	Development of small size harvester for rice	Dr. E V Thomas vareed@agfe.iitkgp.ernet.in	--
	2.2.1	Water and nutrient use efficiency of different rice management techniques with the use of on-farm reservoir facilities	Prof. R Singh rsingh@agfe.iitkgp.ernet.in	Dr. D R Mailapalli mailapalli@agfe.iitkgp.ernet.in Dr. A Mishra amishra@agfe.iitkgp.ernet.in
	2.2.2	Development of a sensor based networking system for improved water management for irrigated crops	Prof. N S Raghuwanshi nsr@agfe.iitkgp.ernet.in	Dr. D R Mailapalli mailapalli@agfe.iitkgp.ernet.in Prof. R Singh rsingh@agfe.iitkgp.ernet.in
	2.2.3	Application of nano-fertilizers for improved crop production and nutrient use efficiency	Dr. D R Mailapalli mailapalli@agfe.iitkgp.ernet.in	Prof. P B S Bhadoria pbsb@agfe.iitkgp.ernet.in Dr. D K Swain swain@agfe.iitkgp.ernet.in
	2.2.4	Estimation of crop coefficients from remotely sensed data to improve irrigation scheduling in India	Dr. C Chatterjee cchatterjee@agfe.iitkgp.ernet.in	Prof. N S Raghuwanshi nsr@agfe.iitkgp.ernet.in
	2.2.5	Investigation of groundwater dynamics and recharge potential under salient crop production systems of eastern India	Prof. M K Jha madan@agfe.iitkgp.ernet.in	--
	2.2.6	Precision nutrient management technologies for	Dr. D K Swain swain@agfe.iitkgp.ernet.in	Prof. P B S Bhadoria pbsb@agfe.iitkgp.ernet.in

		sustainable food grain production		Prof. B C Ghosh bcg@agfe.iitkgp.ernet.in
2.3.1		Development of climate adaptive agro-technologies for sustainable wheat and corn production in eastern India	Dr. D K Swain swain@agfe.iitkgp.ernet.in	Prof. P B S Bhadoria pbsb@agfe.iitkgp.ernet.in Dr. M Mandal mmandal@coral.iitkgp.ernet.in
2.3.2		Climate change adaptations to improve agricultural production in eastern India	Dr. A Mishra amishra@agfe.iitkgp.ernet.in	Prof. R Singh rsingh@agfe.iitkgp.ernet.in
2.3.3		Assessing the nitrogen fixing ability of cyano-bacteria under the climate change scenarios for improving soil health	Prof. N Mallick nm@agfe.iitkgp.ernet.in	Dr. D K Swain swain@agfe.iitkgp.ernet.in
3.1.1		Development of storage technologies for improved food grain storage	Dr. P S Rao psrao@agfe.iitkgp.ernet.in	--
3.1.2		Development of farm-level integrated parboiling, drying and milling system for small and marginal farmers	Dr. S L Shrivastava sls@agfe.iitkgp.ernet.in	--
3.1.3		Primary processing and storage technology at different levels	Dr. P P Tripathy punam@agfe.iitkgp.ernet.in	--

	3.2.1	Development of quality control & measurement systems & protocols for stored food grains	Prof. H N Mishra hnm@agfe.iitkgp.ernet.in	--
Biotechnology (BT)	4.1	Genomic-supported screening of aromatic rice cultivars with high yielding potentiality for growing in local agro-climatic zones	Prof. M. K. Maiti maitimk@hijli.iitkgp.ernet.in	Prof. S. Dutta Gupta(AGFE) sdg@agfe.iitkgp.ernet.in Prof. Somnath Bhattacharyya, BCKV, Mohanpur
	4.2	Targeted metabolomics-based selection of superior scented rice cultivars appropriate for growing in local agro-climatic zones	Prof Adinpunya Mitra(AGFE) adin@agfe.iitkgp.ernet.in	Prof Mrinal K. Maiti maitimk@hijli.iitkgp.ernet.in
	4.3	Food security through reduced dietary intake: low cost nutraceutical development from rice, wheat and coarse grains	Prof. S. Dey sdey@hijli.iitkgp.ernet.in	Dr. M. K. Maiti maitimk@hijli.iitkgp.ernet.in Dr. A. P. Mitra (AgFE) adin@agfe.iitkgp.ernet.in DR. D. Kumar, NIN- Hyderabad
	4.4	Development of sensitive diagnostic kit for detection of pathogens in stored food grains	Prof. A. K. Ghosh aghosh@hijli.iitkgp.ernet.in	

Agricultural and Food Engineering (AGFE)	5.1	Integrated pilot project on food grain production and post-harvest processing and storage at farm level.	Prof. P B S Bhadoria pbsb@agfe.iitkgp.ernet.in	Prof. R Singh, rsingh@agfe.iitkgp.ernet.in Prof. N S Raguhuwanshi nsr@agfe.iitkgp.ernet.in Prof. H Raheman (hifjur@agfe.iitkgp.ernet.in) Prof. E V Thomas vareed@agfe.iitkgp.ernet.in Prof. B C Ghosh bcg@agfe.iitkgp.ernet.in Prof. D K Swain swain@agfe.iitkgp.ernet.in Prof. P S Rao psrao@agfe.iitkgp.ernet.in Dr. S L Shrivastava sls@agfe.iitkgp.ernet.in
Humanities and Social Sciences (HSS)	6	Social impact of NFSA	Prof. D Suar ds@hss.iitkgp.ernet.in	Prof. N C Nayak ncnayak@hss.iitkgp.ernet.in Prof. J Mahakud jmahakud@hss.iitkgp.ernet.in Prof. G S Hiremath gshiremath@hss.iitkgp.ernet.in Prof. B K Sahoo bks@hss.iitkgp.ernet.in
	7	Economic assessment of the food security act	Prof. N C Nayak ncnayak@hss.iitkgp.ernet.in	Prof. D Suar ds@hss.iitkgp.ernet.in Prof. J Mahakud jmahakud@hss.iitkgp.ernet.in Prof. G S Hiremath gshiremath@hss.iitkgp.ernet.in Prof. B K Sahoo bks@hss.iitkgp.ernet.in