## REGISTERED PATENT

Sr. #	Title of patent		Designation	Dept./Inst.	Year of Issue/Grant	Name of Patent office & Country	Remarks
1.	Mineral Supplement Packet	Dr. M. Ashfaq	Professor	Entomology	138398 14.02.2004	IPO, Pakistan	Accepted for commercialization
2.	New Technology of Mass Rearing of Chrysoperla Carnea	Dr. M. Ashfaq	Professor	Entomology	138401 19.04.2005	IPO, Pakistan	Accepted for commercialization
3.	Mass Rearing Technology for a Larval Parasite Bracon Hebetor on commercial scale	Dr. M. Ashfaq	Professor	Entomology	138402 27.05.2005	IPO, Pakistan	Accepted for commercialization
4.	A Zone Disk Tiller Drill	Dr. M. Iqbal	Professor	Farm Machinery and Power	139296 29.06.2005	IPO, Pakistan	Accepted for commercialization
5.	A University Boom Sprayer	Dr. M. Iqbal	Professor	Farm Machinery and Power	139291 29.06.2005	IPO, Pakistan	Accepted for commercialization
6.	A University Boom Sprayer Test Bench	Dr. M. Iqbal	Professor	Farm Machinery and Power	139290 29.06.2005	IPO, Pakistan	Accepted for commercialization
7.	A Multi-Strain novel bio-formulation of bacterial strains for leguminous crops	Dr. Zahir Ahmad Zahir	Professor	IS&ES	469/2013 SI No. 143806	IPO, Pakistan	Accepted for commercialization
8.	Method and Installation for extraction and purification of essential oils from natural resins to produce dynamic flavors and fragrance.	Dr. M. Asif Hanif	Associate Professor	Biochemistry	11.08.2017 ES 2589171	European Patent	Accepted for commercialization
9.	Climate smart storage technology	Dr. Irfan Afzal	Associate Professor	Agronomy	134/2018 Sl. No. 143588	IPO, Pakistan	Accepted for commercialization
10.	Nucleotide sequence analysis of the Hypervariable region of Hexon gene of Fowl adeno virus 1 serotype 4 from Pakistan	Dr. M. Mansoor	Professor	Microbiology		IPO, Pakistan	Accepted for commercialization

11.	Method for propagating microorganisms within plant bioreactors and stably storing microorganisms within agricultural seeds	Dr. M. Naveed	Associate Professor	Soil Science	US 10362787 B2 30.07.2019	US Patent	Accepted for commercialization
12.	Plants containing beneficial entophytes	Dr. M. Naveed	Associate Professor	Soil Science	US 10,271,554, B2 30.04.2019	US patent	Accepted for commercialization
13.	Graphemes Oxide and Cobalt Tin Oxide Nano-composite and Method of Use	Saba Jamil, Shanza Rauf Khan	Assistant Professor	Chemistry	US 10882029 B1	US, Patent	Accepted for commercialization
14.	Method for producing plant seed containing endophytic bacteria	Dr. M. Naveed	Associate Professor	Soil Science	EP 2866541 B1 06.02.2019	European Patent	Accepted for commercialization
15.	Scope-Up: Solar Cold Storage for Perishables with Energy-Efficient Ultimate Cooling Pads	Dr. Anjum Munir	Professor	Energy System Engineering	413/2019 SI No. 143974	IPO, Pakistan	Accepted for commercialization
16.	Inline airflow solar assisted food dryer for reducing energy and drying heterogeneity	Dr. Waseem Amjad	Assistant Professor	Energy System Engineering	319/2019 SI. No. 143990	IPO, Pakistan	Accepted for Commercialization
17.	Method of intelligently prognosticating the shade hange of dyed knitted fabric after finish application	Dr. Assad Farooq	Associate Professor	Fiber and Textile Technology	705/2019 Sl. No. 144012	IPO, Pakistan	Accepted for commercialization
18.	Thermal oil based solar roaster	Dr. Anjum Munir	Professor	Energy System Engineering	489/2019 Sl. No.143845	IPO , Pakistam	Accepted for commercialization
19.	Flow velocity measurement by impact surface mechanism	Dr. Uzair Qamar	Associate Professor	Irrigation and Drainage	SL 143349/2020	IPO, Pakistan	Accepted for commercialization
20.	Cobalt Hydroxystannate Nanocube Fuel Additive	Saba Jamil, Shanza Rauf Khan	Assistant Professor	Chemistry	US2020/0283690 A1	US, Patent	Accepted for commercialization
21.	A Novel indigenous organic soilless substrate for containerized plant production	Dr. Iftikhar Ahmad	Associate Professor	Horticulture	88/2020 Sl. No. 143872	IPO, Pakistan	Accepted for commercialization

22.	Polyherbal-mineral vitamin based supplement formulation for the enhancement of growth performance and immunity in poultry	Dr. Sibtain Ahmad	Assistant Professor	Institute of Animal and Dairy Sciences	6/2020 Sl.No. 144059	IPO, Pakistan	Accepted for commercialization
23.	Novel Process for rapid detection of sulfonamide residues in dairy milk	Dr. Faqir Muhammad	Assistant Professor	IPPP	57/2020 Sl. No. 144069	IPO, Pakistan	Accepted for commercialization
24.	Multi-Nutrient Liquid Fertilizer and its Manufacturing process	Dr. Junaid Nawaz Chauhdary	Research officer	Water Management Science	441/2019 SI.No. 14	IPO, Pakistan	Accepted for commercialization