

**Higher Education Commission, Islamabad**

**Technology Development Fund**

**List of Awarded Projects FY (2016-17-18-19)**

S.No	TDF No	Title	Institute	City	Industry	Industry Name	City	Name of PI	Email of PI
1	TDF-001	Development and Production of Lyophilized Radiopharmaceutical cold Kits of 177Lu/99mTc-DOTA Octreotate and 177Lu/99mTc-5-Flourcil for Diagnosis and Therapy of Common Cancer in Pakistan	PIEAS	Islamabad	Mr. Iqbal Hussain, Pakistan Institute of Nuclear Science and Technology (PINSTECH), Islamabad, 051-9248401, iqbal@pinstech.org.pk.	PINSTECH	Islamabad	Dr. Samina Roohi	samina@pinstech.org.pk
2	TDF-005	Enzymes Production by Super Koji(Aspergillus Oryzae)for Food & Feed Industry, Process Scalling-up at Pilot and Industrial Level	NIBGE	Faisalabad	ASAD ULLAH NAZ , Auriga Group, 33-KM, Multan Road, Lahore, asadullahnz9@gmail.com042-35380256-7,	AGRI Group	Lahore	Mr. Muhammad Hamid Rashid	hamidcombob@gmail.com
3	TDF-011	Development of Bioherbicide Containing Allelophatic Bacteria for Biocontrol of Weeds of Wheat	University of Agriculture, Faisalabad	Faisalabad	Dr. Maqbool Akhtar ,Jaffer Brothers (Private) Ltd. ,3-Mall Mansion, 30, Shahrah-e-Quaid-eAzam, Lahore-54000 ,	Jaffer Brothers	Lahore	Dr. Zahir Ahmad Zahir	zazahir@uaf.edu.pk
4	TDF-016	Indigenization of Water Soluble Fertilizer to Minimize Production Cost for High Value Crops under Drip Irrigation	University of Agriculture, Faisalabad	Faisalabad	M. Tariq Khan Niazi , Di H Chemicals 208 Road Near best Exports, Kashmir Pull, Faisalabad	Di H chemicals	Faisalabad	Dr. Syed Hamid Hussain Shah	shahgee1347@hotmail.com

5	TDF-017	Indigenization and Introducing new technology for removing contamination of fresh fruits and vegetables at household level	University of Agriculture, Faisalabad	Faisalabad	Engr, Hamid Ali, Koldware Industries Pvt Ltd, Office No. 427, 4th Floor, Bhayani Shopping Centre, Block'M', North Nazimabad. Karachi -	Koldware Industries Pvt Ltd,	Karachi	Mr. Aman Ullah Malik	malikaman1@gmail.com; malikaman1@yahoo.com
6	TDF-028	Implementation of a field portable prototype as an early warning system for on-site screening of food products in agriculture industry	CIIT, Lahore	Lahore	Dr. Fayyaz Ahmad Siddiqui Eco Global Foods. Karachi	Eco Global Foods	Karachi	Dr. Akhtar Hayat	<a href="mailto:akhtarhayat@ciitlahore.edu.pk">akhtarhayat@ciitlahore.edu.pk</a>
	TDF-029	Reshaping Online Consumer Experience with Data Driven Personalized Chatbots	NUST, Islamabad	Islamabad	Muhammad Ali Shahzad, AARZ Media, Office # C-18, Block A, Wapda Town, Sangjani Islamabad,	AARZ Media	Islamabad	Faisal Shafait	<a href="mailto:faisal.shafait@seecs.edu.pk">faisal.shafait@seecs.edu.pk</a>
8	TDF-033	Transforming biomass ash residues into commercializable products	LUMS, Lahore	Lahore	Dr. Amir Said Bulleh Shah Packaging Pvt. Ltd, Kasoor	Bulleh Shah Packaging Pvt. Ltd,	Kasoor	Dr. Basit Yameen	<a href="mailto:basit.yameen@lums.edu.pk">basit.yameen@lums.edu.pk</a>
9	TDF-035	Development of indigeniozed soil moisture sensor based precision irrigation scheduling for improving water use	University of Agriculture, Faisalabad	Faisalabad	Engr. Hasan Ahmed, IT Empire 6-Z-14-Chenab Market Madina Town, Hockey Stadium Faisalabad, <a href="mailto:admin@itempire.org">admin@itempire.org</a> ,	IT Empire	Faisalabad	Dr. Allah Baksh	bakhsh_uaf@yahoo.com
10	TDF-036	Development of innovative technologies to reduce post harvest losses in cereals, oil seeds and pulses	University of Agriculture, Faisalabad	Faisalabad	Mir Kasim Adnan, Anaaji, FF-25, Asian Business Center, Islamabad , <a href="mailto:kashif@anaaji.com">kashif@anaaji.com</a> , <a href="mailto:kashif_adnan@yahoo.com">kashif_adnan@yahoo.com</a>	Anaaji	Islamabad	Dr Irfan Afzal	iafzal@uaf.edu.pk

11	TDF-039	Buffer Optimized high gradient magnetic separation technology to study the biology of livestock parasites: Immuno-magnetic isolation of infected	PMAS Arid Agriculture, University, Rawalpindi	Rawalpindi	Shahid Waseem, Alpha Genomics, Danyal Plaza, Block A, Main Double Road, PWD, Islamabad, md@alphagenomics.com 51-5421083	Alpha Genomics	Islamabad	Dr. Mazhar Qayyum	drmazhar.qayyum@uair.edu.pk
12	TDF-040	Development of probiotic fresh cheese	NIBGE	Faisalabad	Mr. Mohsin Ali Khan Toru, 051 2252993-4, Cheese & Dairy Factory (Pvt) Ltd, head office: H:5, St:38, F-8/1, Islamabad, mohsin@cheeseanddairy.com	Cheese & Dairy Factory (Pvt) Ltd	Islamabad	Arsalan Zaidi	azlanzaidi@yahoo.com
13	TDF-044	Synthesis of ferrites based polymer sheets for radar absorbing application: Structural dependence and effect of binary/ ternary oxides addition.	Air University, Islamabad	Islamabad	Dr. Israr, PAC Board Kamra, Aviation Design Institute (AvDI), Pakistan Aeronautical Complex, Kamra	PAC (AvDI)	kamra	Dr Muhammad Atif	matif_80@yahoo.com
14	TDF-047	Sensor based Unmanned Aerial Agro-chemical spraying (UAAS) System.	University of Agriculture, Faisalabad	Faisalabad	Suleman Ashraf, SATUMA Pvt. Ltd, Union Council Road, Sihala, Islamabad, Pakistan, support@satuma.com.	SATUMA Pvt. Ltd	Islamabad	Muhammad Jehanzeb Masud Cheema	mjm.cheema@uaf.edu.pk
15	TDF-051	Commercialization of dried citrus pulp as concentrate source in animal feed	University of Agriculture, Faisalabad	Faisalabad	Ghulam Hussain, Maqbool Road Usman Market Faisalabad,	MZ Engineering	Faisalabad	Dr Muhammad Sharif	drsharifuaf@yahoo.com

16	TDF-053	Introduction and promotion of one pass conservation tillage machinery for cotton wheat cropping system	MNSU , Multan	Multan	Capt (R) Shahid Rahim , M/s Agri-Tech Industries , 47-B-I, Industrial Estate Multan  agritec47@hotmail.co	Agri-Tech Industries	Multan	Dr Alamgir Akhtar Khan	alamgir.khan@ mnsuam.edu.p k
17	TDF-061	Design and development of solar hybrid seed dryer (SHSD) using ANSYS	University of Agriculture, Faisalabad	Faisalabad	Muhammad Arshad, PAMICO Technologies, P-214, Street # 2, Shadab Colony Jhang Road Faisalabad Pakistan, info@pamicotechnologi	PAMICO Technologies	Faisalabad	Dr. Waseem Amjad	waseem_amja d@uaf.edu.pk
18	TDF-062	Development of commercial natural indigo dyes for dyeing cotton textile from indigenous indigo plants.	Mehran University of Engineering Technology	Jamshoro	Arshad Mehmood, Archroma Pakistan Limited, 1-A/1, Sector 20, Korangi Industrial Area, Karachi 74900 Sindh Pakistan, Office: 021 111275786 ext. 256	Archroma Pakistan	Karachi	Dr. Awais Khatri	awais.khatri@f aculty.muettaxila.edu. u.pk
19	TDF-067	RFID Tags and Sensors for Inventory Control, Stock Security and Asset Monitoring	University of Engineering and Technology , Taxila	Taxila	Wajeeh Anwer, Executive Vice President Technical (North), Islamabad Telephone House PTCL, F-5, Islamabad, 051- 2277111, wajeeh_anwer@ptcl.net	PTCL	Islamabad	Engr.Dr.Yasar Amin	yasar.amin@u ettaxila.edu.pk
20	TDF-068	Unattended Ground Motion Detection and Classification	University of Engineering and Technology , Taxila	Taxila	Advanced Research in Engineering (CARE) 19 – Ataturk Avenue, G – 5/1, Islamabad Pakistan, ali.syed@carepvtltd.co m	CARE	Islamabad	Dr.Adeel Akram	adeel.akram@ uettaxila.edu.p k

21	TDF-077	SETMOKE: A Semantic Engine for Text Mngement using Ontology and Knowledge Engineering	University of Engineering and Technology , Lahore	Lahore	GM Fukarsoft Technologies, nauman Hanif, Director Barkat Mkt Lahore, 0321 4946496	Fukarsoft Technologies	Lahore	Muhammad Usman Ghani Khan	<a href="mailto:usman.ghani@kics.edu.pk">usman.ghani@kics.edu.pk</a>
22	TDF-078	Brain Informatics: Classification and Modeling of Brain Data	University of Engineering and Technology , Lahore	Lahore	GM Fukarsoft Technologies, nauman Hanif, Director Barkat Mkt Lahore,	Fukarsoft Technologies	Lahore	Muhammad Usman Ghani Khan	<a href="mailto:usman.ghani@kics.edu.pk">usman.ghani@kics.edu.pk</a>
23	TDF-082	Design and Development of a solar assisted cold storage system for the preservation of perishables.	University of Agriculture, Faisalabad	Faisalabad	Mian Ali Mahmood, Power Pack Energy, H0: P1269, Canal road, Abdullahpur Faisalabad.	Power Pack Energy	Faisalabad	Anjum Munir	anjum.munir@uaf.edu.pk
24	TDF-084	Design and Development of vertical Balancing Machine for Local Industry	NUST, Islamabad	Islamabad	Mr. Muhammad Wasim Khalid, MECAS Engineering Pvt. Ltd., 1/2 Km Katar Bund Road, Thokar Niaz Baig, Off: Multan Road, Lahore - Pakistan., <a href="mailto:mecas@mecasengineering.com">mecas@mecasengineering.com</a> , 042-35299513	MECAS Engineering Pvt. Ltd.,	Lahore	Prof.Dr. Riaz Ahmead Mufti	riazmufti@smme.nust.edu.pk

25	TDF-087	Designing, Establishment and Validation of non-invasive diagnostic kit of endemic viral infection in Pakistan	NUST, Islamabad	Islamabad	Tariq Shahzad Chaudhary, Pakistan Hospital and Industrial laboratory Company (PHILCO) , ADDRESS PHILCO, 32 ABKARI ROAD, NEW ANARKALI, Dr. Anmar Iqbal, , ahmeriqbal1@gmail.com , Armed Forces Institute of Rehabilitation Medicine (AFIRM) Rawalpindi	Pakistan Hospital and Industrial laboratory Company (PHILCO)	Lahore	Sobia Manzoor	lciunique@yahoo.com
26	TDF-088	AAWAZ	NUST, Islamabad	Islamabad	Tahir Abbas , RWR (Pvt.) limited. Plot 219A, Street 7, I-9/3, Islamabad, Pakistan, tahir@rwrlimited.com, 051-4449367-8,	Armed Forces Institute of Rehabilitation Medicine (AFIRM)	Rawalpindi	Dr. Seemab Latif	seemab@mcs.edu.pk
27	TDF-090	Design and Development of S-Band TRR Module for Phased-Array Radars	NUST, Islamabad	Islamabad	Dr. Shoaib Ahmed Khan Center for Advancement of Research in Engineering (CARE) Sir Syed Memorial Building, 19 Ataturk Avenue, Sector C-5/1	RWR (Pvt.) limited	Islamabad	Dr.Hammad M. Cheema	hammad.cheema@seecs.edu.pk
28	TDF-092	Design and Development of UHF/VHF Band Software Defined Radio	LUMS, Lahore	Lahore	Mr.Shahid Akhtar ED Cotton Craft Pvt Ltd, Lahore,	CARE	Islamabad	Wasif Tanveer Khan	<a href="mailto:wasif.tanveer@lums.edu.pk">wasif.tanveer@lums.edu.pk</a>
29	TDF-094	Converting inexpensive indigenous chitosan to high value commercial pro-angiogenic tissue engineered skin grafts for burn patients	CIIT, Lahore	Lahore		Cotton Craft Pvt Ltd	Lahore	Dr. Muhammad Yar	<a href="mailto:drmyar@ciitlahore.edu.pk">drmyar@ciitlahore.edu.pk</a>

30	TDF-095	Optimization, fabrication and designing of a portable solar powered umbrella	University of Agriculture, Faisalabad	Faisalabad	Muhammmad Imran , Main Scientific Corporation , 534, Jinnah Colony, Faisalabad, 041-2629674-75-76.	Scientific Corporation	Faisalabad	Dr. Yasir Jamil	yasirjamil@yahoo.com
31	TDF-097	Development of Artifical Intelligence based prediction system for shade change after finishing application	University of Agriculture, Faisalabad	Faisalabad	M. Rizwan Azeemi. General Manager Processing, ,rizwanazeemi@bestofthe knits.com, Sadaqat Rasool.Manager HR,, hr@bestofthe knits.com	Kay and Emms Pvt. Ltd.	Faisalabad	Assad Farooq	assadfarooq@googlemail.com
32	TDF-102	Lab to Market: Xanthan gum production through microbial fermentation	Jinnah University for Women, Karachi	Karachi	Mr. Abrar Ahmed (MD), contact person: Mr. Naveed Ashraf (head R&D division), , naveed.ashraf@src.com.pk , SHAFI RESO-CHEMICALS PVT. LIMITED. 3-K.M	SHAFI RESO-CHEMICALS PVT.	Lahore	Dr.Rashida Rahmat Zohra	rrxohra@gmail.com
33	TDF-107	Preparation of highly specific ELISA kit based on recombinant outer membrane protein(OMP) of Pasteurella multocida	University of veterinary and Animal Sciences, Lahore	Lahore	Farhan Javed Bukhari GM UM Enterprises, Karachi,	UM Enterprises	Karachi	Aamir Ghafoor	<a href="mailto:aamir.ghafoor@uvas.edu.pk">aamir.ghafoor@uvas.edu.pk</a>
34	TDF-110	Light weight bullet proof vest made from 3D comingled woven thermoplastic composite and novel auxetic woven fabrics	National Textile University, Faisalabad	Faisalabad	Dr. Rizwan, Director General (Projects), NESCOM Plot 94 h-11/4 Islamabad, rizhssn@yahoo.com, 051906721711,	NESCOM	Islamabad	Dr.Yasir Nawab	yasir.nawab@yahoo.com

35	TDF-116	End-to-end secure communication over voice channel	Air University, Islamabad	Islamabad	Air Cdre Arif Kazmi (Assistant Chief of the Air Staff- Network Centric Warfare) , acasncw@paf.gov.pk, Pakistan Air Force, E-9 Air Headquarters Islamabad. Ammar	PAF E-9	Islamabad	Dr. Liaqat Ali Khan	liaquatalikhan@gmail.com
S. No	TDF No	Title	Institute	City	Industry	Industry name	City	Name of PI	Email of PI
1	TDF02-006	Establishment of vermi-tech unit at Azad Jammu and Kashmir, Muzaffarabad for vermi product development	Azad Jammu and Kashmir University, Muzaffarabad,	Muzaffarabad	First Biotech Lahore DR. Nadeem Tariq , Managing Partner , Address: 22-heaven homes, Tariq Isaeel Road, Khyaban-e-Jinnah, Lahore , Phone No : , Email :	First Biotech	Lahore	Dr. Saiqa Andleeb Assistant Professor	drsaiqa@gmail.com
2	TDF02-011	Pilot plant for development of bio-degradable laundry liquid detergent and dish washer liquid detergents according to European standards	COMSATS Institute of Information Technology , Lahore	Lahore	1-Mr. Sheikh Ahsan Rasheed, Chief Executive Officer/Vice Chairman ceo@shamaghee.com, 061-4482741-6, , 2-Mr. Mohammad	Shama ghee	Multan	Dr. Murid Hussain	drmhussain@ciitlahore.edu.pk
3	TDF02-012	Development and commercialization of transgenic potato lines tolerant to fungi and viruses	BUITMES Quetta	Quetta	Mr. Azam Cheema, CEO Sayban International , 042-35380256 33 Km Multan road Lahore, Email: azamcheema@saybangroup.com		Lahore	Dr. Anwar Khan	anwarleo2003@gmail.com;



4	TDF02-013	Development and commercialization of broad spectrum bioformulated fungicide.	BUITMES Quetta	Quetta	Mr. Azam Cheema, CEO Sayban International , 042-35380256 33 Km Multan road Lahore, Email: azamcheema@saybangroup.com	Sayban International	Lahore	Dr. Anwar Khan	anwarleo2003@gmail.com;
5	TDF02-016	Maximizing shelf life, microbial safety and quality of red meat through Modified atmosphere packaging technology	UVAS, Lahore	Lahore	Mr. Muhammad Imran, Manager Quality Assurance, Commodities & Ultra Fresh department, tanolian85@yahoo.com , muhammad.imran@metro.pk, 042-37508000,	Metro cash and carry	Lahore	Dr. Muhammad Sohaib	muhammad.sohaib@uvas.eu.pk
6	TDF02-018	UTILIZATION OF POULTRY WASTE AS AN ENTREPRENEURSHIP	UVAS, Lahore	Lahore	Ch. Shabir Hussain, Chief Executive, BIRD INN POULTRIES(PVT) Ltd.Pakistan, birdinnpoultres786@gmail.com,, Email: birdinnpoultres786@g	BIRD INN POULTRIES(PVT)	Lahore	PROF.DR. ATHAR MAHMUDMUMD	atharmahmud@uvas.edu.pk
7	TDF02-023	Development, validation and commercialization of rapid screening diagnostic strip for cutaneously transmitted bovine zoonoses in Pakistan: A step towards	UVAS, Lahore	Lahore	Aslam Javed, CEO Scientific traders, Suit # 4 Basement Hira centre 15 Bukhari Road Lahore. Phone : , 0092-42-37214884. Scientific.traders@yahoo	Scientific traders	Lahore	Dr. Raheela Akhtar. Department of Pathology	<a href="mailto:raheela.akhtar@uvas.edu.pk">raheela.akhtar@uvas.edu.pk</a>

8	TDF02-024	Development of a Nontracking Collector with Nano Fluids to Enhance the Thermal Capabilities of the Collector	BUIITEMS, Quetta	Quetta	Shafi Reso chemicals, MUHAMMAD NAVEED ASHRAF, Manager R&D, Head Office (Plant) 3km Bulhar Road off 22 Km Ferozpur Road Rohi nallah Lahore Pakistan.	Shafi Reso chemicals	Lahore	Dr. Ali Nawaz Mengal	ali.nawaz@buitms.edu.com aliract@gmail.com
9	TDF02-027	A Real-time High Power Induction Motor Health Monitoring System	Information Technology University, Lahore	Lahore	Mr. WASIF AHMED, Manager Electrical Engineering, Shafi-Reso Chemicals (Pvt) Ltd, wasifam@yahoo.com, 042 35260401-04, (Shafi-Reso Chemicals, Muhammad Naveed	Shafi Reso chemicals	Lahore	Dr. Usman Younis	usman.younis@itu.edu.pk
10	TDF02-028	PREPARATION AND EVALUATION OF MULTIVALENT VACCINE FOR CLOSTRIDIUM PERFERINGINS USING LOCALLY CHARACTERIZED TOXINOTYPES	UVAS, Lahore	Lahore	Aslam, Plant Manager, Leads Pharmaceutical, mrnavidmna@gmail.com, 051-4441081, (Leads Pharmaceutical, Pvt. Ltd. Plot # 81-A, Street # 06, 1-10/3 Islamabad)	Leads Pharmaceutical	Islamabad	Prof. Dr. Aftab Ahmad Anjum	aftab.anjum@uvas.edu.pk
11	TDF02-035	Smart Rice Quality Analyzer Gadget Using Machine Learning and Image Processing	NED Karachi	Karachi	Mr. Aansar Abbas, Al Karam Rice Engineering, S.I.T.E., Karachi, 92 21 32550291 aansarabbas@yahoo.com	Al Karam Rice Engineering	Karachi	Dr. Muhammad Khurram	mkhurram@neduet.edu.pk
12	TDF02-037	IntelliMed - An Intelligent Tutoring System for Medical Problem Based Learning	ISRA University, Hyderabad	Hyderabad	Mr. Shahbaz Ahmed, CEO shahbaz.ahmed@logicaltechnologist.com, (Logical Technologist, Suite # 17, 5th floor Crystal Heights Main Fawcetti Road	Logical technologist	Hyderabad	Prof. Dr. Hameedullah Kazi	hkazi@isra.edu.pk

13	TDF02-038	Performance of confined Dry Block Masnry Against Blast Loading	UET , Peshawar	Islamabad	Yaqoob Khan, Chief Executive, 103, street 59, F-10/3, Islamabad, Pakistan , yaqoobkhan@gmail.com ( Eco Enterprises )	Eco enterprise	Islamabad	Dr.Khan Shahzada	Khanshahzada@uetpeshawar.edu.pk
14	TDF02-040	Establishment of Center for Industrial and Building Energy Audits (CIBEA) at UET Peshawar	UET, Peshawar	Peshawar	Zarak.k Khattak, CEO, FF Steel, , 091-111-888-999, Fax: 091-5815808 Email: zk@ff.com.pk ( FF-STEEL Plot No. 166, Road B-7, Hayatabad Industrial Estate, Peshawar )	Frontier Foundry Steel	Peshawar	Dr. Mohammad A Irfan	mairfan@uetpeshawar.edu.pk
15	TDF02-041	THE DEVELOPMENT OF HIGHLY SENSITIVE NOVEL "ELISA KIT" FOR THE QUANTITATIVE DETCTION OF 146S FRACTION OF FOOT AND MOUTH DISEAE (FMD) VIRUS FOR THE	UVAS, Lahore	Lahore	Dr. Sajjad Hussain, Additional Director FMRC, VRI, LHR, PAK, sajjadsanghi@gmail.com, imran.ataf@uvas.edu.pk,	Foot and mouth disease reserch center	Lahore	IMRAN ALTAF	imran.ataf@uvas.edu.pk
16	TDF02-043	Development of a medicinal product, capable of fighting against obesity and metabolic syndrome.	University of Karachi	Karachi	Mr. Raheel Saeed, Director and CEO at Dawasaz (Pvt) Ltd. , raheelsaeedj48@gmail.com ( Dawasaz (Private) Limited.)	Dawasaz (Pvt) Ltd.	Karachi	Dr. Darakshan Jabeen Haleem	djhaleem@uok.edu.pk
17	TDF02-046	Commercialization of high wear and corrosion resistance Iron based Amorphous-ceramic composite coatings for industrial applications	IST Islamabad	Islamabad	Naveed Ashraf ,Senior Manager R&D, Telephone: 04235260401-04 Fax: 04235260416 Email:	Shafi Reso chemicals	Lahore	Dr. Muhammad Yasir	<a href="mailto:muhammadyasir85@gmail.com">muhammadyasir85@gmail.com</a>

18	TDF02-052	Marble industry: A case study on industrial symbiosis, envisioning zero waste	UET , Peshawar	Peshawar	Mr. Waqas Ahmed Ansari, Manager (Projects), waqas.pasdec@gmail.com, 051-9263465-7. (Pakistan Stone	Pakistan Stone Development Company		Dr. Muhammad Imran Ahmad	imran.ahmad@uetpeshawar.edu.pk
19	TDF02-053	MULTI-TASKING MACHINE FOR PRECISION SOWING OF ROW CROPS	University of Agriculture, Faisalabad	Faisalabad	Capt Shahid Raheem, CEO, Agritech Industries, agritec47@hotmail.com, 061-6537912, (AgriTech Industries Pvt.	Agritech Industries	Multan	Dr. Muhammad Jehanzeb Masud Cheema	mjm.cheema@uaf.edu.com
20	TDF02-054	Study on the effects of Silver nano particles (AgNPs) in epoxy monomers based PDLC films (Smart glass)	BUIITEMS, Quetta	Quetta	Mr. Aslam Bhutta, Managing Director, polymerpk@gmail.com, Tel: +92 (0)51-4430835-7, Fax: +92 (0)51-4430834 International Polymer	International Polymer Industries	Islamabad	Dr. Mujtaba Ellahi	mujtaba.elahi@buitms.edu.pk; mujtaba.ellahi@gmail.com
21	TDF02-057	Digital Surveying and Modeling of Buildings and Surroundings using Hand Held Laser Scanners	NED UET Karachi	Karachi	Mr. S. Imran, CEO, Techno world instrument service, imran@twis.com.pk, 021-34817776, (Techno world instrument service. E7	Techno world	Karachi	Dr. Syed Riaz un Nabi	riazun1036@gmail.com
22	TDF02-059	Establishing IVEP-Center - An entrepreneurial step towards self-sustainability for Dairy industry of Pakistan	UVAS, Lahore	Lahore	AlHaiwan Siries Sahiwal, Dr. Muhammad Farooq , CEO, Chak 99/9-L , 5KM Pakpattan Road, Sahiwal , Email:	AlHaiwan Siries	Sahiwal	Dr. Amjad Riaz	<a href="mailto:dramjadriaz@uvas.edu.pk">dramjadriaz@uvas.edu.pk</a>

23	TDF02-065	Development of High Performance and Reliable MEMS Inertial Sensors for UAVs Applications	NUST Islamabad	Islamabad	Mr. Fahad Tiwana – Tech Valley, CEO, Technology/Engineering Services, Engineering Services, Tech Valley, 2rd Floor,	Tech Valley	Islamabad	Dr. Muhammad Mubasher Saleem	mubasher.saleem@ceme.nust.edu.pk
24	TDF02-069	PROCESS SCALE UP AND OPTIMIZATIONS FOR SYNTHESIS OF THERMOSTABLE INDUSTRIAL ENZYMES	University of Punjab, Lahore	Lahore	Muhammad Nasir Ahmed, Manager Operations, Phone; 04235260591-4 Extn. 108 , Fax: (Area code, number) 04235260596	AB Mauri Pakistan	Lahore	Dr. Nasir Ahmad	mna.pk1@gmail.com
25	TDF02-070	Development of Monopulse Microwave Instrument Landing System (ILS) receiver and glide slope Antenna Array	IST Islamabad	Islamabad	AVIM Asad Ikram, DG Aviation Design Institute (AvDI), PAC, Kamra ikramasad@hotmail.com, dgavrid@pac.org.pk	Aviation Design Institute	Kamra	Dr. Muhamamd Amin	Dr.Ing.Amin@gmail.com
26	TDF02-071	Design and Development of a Rotibot (An Automated machine/appliance to cook bread/chapatti	LUMS, Lahore	Lahore	Hafiz Avais Ghani, CEO, Manufacturing, ceo@ghanigroup.com.pk, Mobile: Email:	ghanigroup	Lahore	Dr. Wasif Tanveer Khan	wasif.tanveer@lums.edu.pk
27	TDF02-072	Development of Antenna Training and Measuring System.	NUST Islamabad	Islamabad	Masud Ahmed Bhatti, CEO , MUBARAK Hi-tech, Email; mubarakhightech.1950@gmail.com, Phone: Fax; 051-5733031 ( MUBARAK Hi-tech , Basement Najeeb Plaza	MUBARAK Hi-tech	Islamabad	Dr. Farooq Ahmad Bhatti	fabhatti@mcs.nust.edu.pk

28	TDF02-075	Internet of Things (IoT) based Conversion Kit for Motor Loads	LUMS, Lahore	Lahore	Mr. Waqas Moosa Director Marketing Marketing department waqas.moosa@hadron solar.com +92 42 35008041 ( Hadron Solar Pvt. Ltd.	Hadron Solar Pvt. Ltd.	Lahore	Dr. Tariq Mahmood Jadoon	<a href="mailto:jadoon@lums.edu.pk">jadoon@lums.edu.pk</a>
29	TDF02-078	Cost effective production of hydrolytic enzymes: Sealing the gaps from bench top to market	FUUAST Karachi	Karachi	Dr. Rashid Saleem, Sr. Manager R&D. Phone: +92-42 35260401-04 Fax: 92-4235260416 Mobile: Email: r&d@src.com.pk ( SRC Pvt. Ltd . 3KM	Shafi Reso chemicals	Lahore	Dr. Maryam Shafique Assistant Professor (TTS-19)	maryamshafique@yahoo.com
30	TDF02-083	Cyber Threat Intelligence Platform (CTIP)	CIIT, Islamabad	Islamabad	Mahir Mohsin Sheikh (Trillium Information Security Systems), Telephone: +9251-5524181 Fax: +92 51 556 8044 Email: humak@humakeng.com	Trillium Information Security Systems	Rawalpindi	Masoom Alam	masoom.alam@comsats.edu.pk
31	TDF02-086	Design of A Solar Thermal Cold Storage System Using Natref (CO2).	University of Gujrat, Hafiz Hayat	Gujrat	Humak engineering Pvt. Ltd. Address: Aurangzeb Plaza # 3, Adjacent PACE Gujrat , G.T Road Gujrat, Phone : 053-3526000	Humak engineering Pvt. Ltd	Gujrat	Dr. Naeem Abas	naeemkalair@uog.edu.pk
32	TDF02-093	Extracorporeal Shock-Wave Therapy for Treating Musculoskeletal Injuries in Horses in Pakistan".	UVAS Lahore	Lahore	Mr. Sheikh Shahzad Akhtar, Secretary, Phone: 042-35112864-35115001 Ext:101 , Fax: 042-35215762, lrc_races@hotmail.com Address: ( Lahore	Lahore Race Club	Lahore	DR. SHEHLA GUL BOKHARI	shehla.gul@uvas.edu.pk

33	TDF02-094	The Use of Platelet-Rich Plasma (PRP) for Treatment of Musculoskeletal Injuries in Horses	UVAS Lahore	Lahore	Mr. Sheikh Shahzad Akhtar, Secretary, Phone: 042-35112864-35115001 Ext:101 , Fax: 042-35215762, lrc_races@hotmail.com	Lahore Race Club	Lahore	Dr. Shehla Gul Bokhari	shehla.gul@uvas.edu.pk
34	TDF02-095	"A Sonographic Diagnosis and Platelet-Rich Plasma (PRP) Treatment for Superficial (SDFT) and Deep (DDFT) Digital	UVAS Lahore	Lahore	Mr. Sheikh Shahzad Akhtar, Secretary, Phone: 042-35112864-35115001 Ext:101 , Fax: 042-35215762, lrc_races@hotmail.com	Lahore Race Club	Lahore	Dr. Shehla Gul Bokhari	shehla.gul@uvas.edu.pk
35	TDF02-098	Need based Integrated E-Learning System for Agricultural Technology Transfer by Using Hybrid Approach	University of Agriculture Faisalabad	Faisalabad	Dr. Zaheer Ahmad, Agronomy Functional Head, Agrobusiness Solution Division, Engro Fertilizer Ltd., Email: dzahmad@engro.com , ; +92 21 111 211 211, 021-35810669 ( Mr. Mansoor Lashari,	Engro Fertilizer Ltd	karachi	Dr. Babar Shahbaz	bshahbaz@uaf.edu.pk
36	TDF02-101	Li-Ion battery unit as replacement of Lead-acid batteries for existing and new storage based electrical systems.	LUMS, Lahore	lahore	Director Business Development, Sozo Group of Companies, mansoor.lashari93@gmail.com, 051-35408767, ( Sozo Group of Companies,	Sozo Group of Companies,	Lahore	Dr. Jahangir Ikram	jikram@lums.edu.pk
37	TDF02-103	Design and development of a portable water monitoring system	University of Agriculture, Faisalabad	Faisalabad	Mr. Abid Javed, Zonal Manager, Faisalabad, engg.aabid@gmail.com , +92-423-7651405,( Sohail Chaudhry & Co. 5 Bull Road, Link Brandreth Road	Sohail Chaudhry & Co.	Lahore	Dr. Muhammad Uzair Qamar	muhammad.uzair@uaf.edu.com

38	TDF02-106	Development, promotion and commercialization of eco-friendly herbal dewormer for the control of parasites in Production of special	University of Agriculture, Faisalabad	Faisalabad	Muhammad Kashif, Owner/Manger, , asherbal483@gmail.com ( Al Shiekh Herbal Products, Jhang Road, Near shehnai marriage Sheikh Javed Elani,	Al Shiekh Herbal Products	Gojra	Dr. Rao Zahid Abbas	raouaf@hotmail.com
39	TDF02-111	Development of special cement by incorporating polymers to enhance its properties like resistance to water penetration , chemical attacks , crack attacks and corrosion and	UET Lahore	Lahore	Advisor Technical, Pioneer Cement ltd, jelahi@pioneercement.com , pioneer@pioneercement.com , Address: Pioneer Cement Ltd	Pioneer cement	Lahore	Dr Maria Idrees	mariaidrees@uet.edu.pk
40	TDF02-113	LOCAL LANGUAGE SPEECH INTERFACES FOR BANKING SECTOR OF PAKISTAN	UET Lahore	Lahore	Tanzeer Ul Rehman Chief Operatinf Officer info@virtualforce.io ( Virtual Force Private Limited ) Address: Suit # 2, 1st Floor, Al hafeez Suites 69/B-2 Gulberg	Virtual Force Private Limited	Lahore	Dr. Tania Habib	tania.habib@kics.edu.pk
41	TDF02-114	ENERGY EXTRACTION BY SAFE DISPOSAL OF MUNICIPAL WASTE USING NANOTECHNOLOGY	UET Lahore	Lahore	Khalid Ahmed Khan, CEO, FSK Pvt. Ltd. Phone: , Email: khalid@fsk.com.pk Address: 12-A Green Acre Housing Scheme, Main Raiwind Road (Lahore)	FSK Pvt. Ltd	Lahore	Dr. Khurshid Aslam Bhatti	kabhatti@uet.edu.pk
42	TDF02-116	High Pressure Processing Innovative Technology for Development of All-Natural Fruit Juices	UVAS Lahore	Lahore	Munammad Nauman R&D Manager Tops Food & Beverages, Telephone: 051 5567041-7 Fax: 051 556546) Email: noman1725@gmail.com	Tops Food & Beverages	Rawalpindi	Hafiz Muhammad Shahbaz	shahbaz.uaf@gmail.com; muhammad.shahbaz@uvas.edu.pk



43	TDF02-117	Development and Implementation of an Open Source Extreme Rainfall and Flood Monitoring System for Real Time Alerts and Emergency Management Activities.	University of Agriculture, Faisalabad.	Faisalabad	Mian Salman Khalid, CEO SK Developers, Net Cash Pakistan. 041-2432244, admin@skdevelopers.info ( SK Developers, Net Cash Pakistan. Address : Office# 6 1 st Floor Moon Plaza	SK Developers, Net Cash Pakistan	Chiniot	Dr. Muhammad Adnan Shahid	m_adnanshahid@yahoo.com
44	TDF02-123	Enhanced Protein Recovery from Broken Rice/ Rice waste through chemical process	UOG, Gujrat.	Gujrat	M. Shoaib Sethi CEO Khatoon Industries (pvt) Ltd, Gujranwala Phone: 0306-4294900, Email: shoaibsethi@khatoonin	Khatoon Industries (pvt) Ltd	Gujranwala	Prof.Dr.M.Suleman Tahir	drsuleman.tahir@uog.edu.pk
45	TDF02-124	Development of a Multi-Purposed Environment Friendly and Efficient Smart Wood Stove	MUST AJK	Mirpur	Updated Mr. Umair Hussain Director Operations 58-A, Small Industries estate No.1, Gujranwala	Indus Gas Appliances	Gujranwala	Khuram Pervez Amber	khuram.parvez@must.edu.pk
46	TDF02-127	MICROFLUIDIC LAB ON A CHIP CYTOMETER FOR POINT OF CARE HIV/AIDS DIAGNOSTICS	LUMS, Lahore	Lahore	Dr. Faisal Sultan, Chief Executive Officer (CEO), Email: faisal@skm.org.pk, Phone : +92 42 5905000 , 3002, ( Shaukat Khanam	Shaukat Khanam Memorial Hospital & Research Center	Lahore	Dr. Nauman Zafar Butt	nauman.butt@lums.edu.pk

47	TDF02-128	AUTOMATIC PAKISTANI POSTAL ADDRESS RECOGNITION AND PARCEL ROUTING	UET Lahore	Lahore	Sohail Iqbal Sheikh, Director, TCS, sohail.shaikh@tcs.com.pk, ( As per application form ) Salman Akram , Managing director, TCS head quarters 101-104, civil aviation club road, Karachi .	TCS	Lahore	Dr. Sarmad Hussain	sarmad.hussain@kics.edu.pk
48	TDF02-137	Non-Thermal Plasma for Ecological Farming”	CIIT Islamabad	Islamabad	Salman Seed Company, CEO,Importer/Exporter, sseeds@gir.pknet.com.pk,- Abdur Rehman , Manager Operation, High Tec Solution, rehmanphy@gmail.com	Salman Seed Company	Rawalpindi	Najeeb-ur-Rehman	najeeb-ur-rehman@comsats.edu.pk
49	TDF02-142	Sustainable, water, chemical and cost efficient textile bleaching	UET Lahore	Lahore	Mr. Zahid Hussain, Senior Manager Interloop, zhussain@interloop.com.pk, 0414360400, . Address : Interloop ltd. 1.5 km jaranwala khurianwala road, khurianwala	Interloop ltd.	Faisalabad	Dr. Muhammad Mohsin	mohsinmalikntu@yahoo.com
50	TDF02-145	LOW COST ASSISTIVE ROBOTS FOR DIFFERENTLY ABLED CHILDREN AND GENERAL USE	NED UET, Karachi	Karachi	Mariyum Jamshid, Mobile mariyum.jamshid@hotmail.com , Email: mariyum.jamshid@traxlogic.com (5TH FLOOR, OFFICE 518, THBC, KHAYYAM	Traxlogic	Karachi	Dr. Hashim Raza Khan	hashim@neduet.edu.pk

51	TDF02-147	Development of packaging protocols for commercially processed products of mango, Kinnow, potato and tomato	University of Agriculture, Faisalabad	Faisalabad	Mr. Riaz Ahmad, Director Production, Shezan International Ltd., Lahore, riaz.ahmad@shezan.com, 0092-42-37466900-341, + ( Shezan International Ltd. 56 Bund Road , Lahore,	Shezan International Ltd., Lahore	Lahore	Dr. Inam-ur-Raheem (Assisant Professor	raheemuaf@gmail.com
52	TDF02-150	Genetic Transformation of Pathogenesis-Related genes in Wheat (Triticum aestivum) for sustainable resistance	GCU Faisalabad	Faisalabad	Muhammad Azam Rasheed, National Seed Company, Shekhupura road Gujrawala ( National Seed	National Seed Company	Gujranwala	Dr Shazia Anwer Bukhari	bukhari.shazia@yahoo.com
53	TDF02-151	Development of first Commercial scale citric acid production plant in Pakistan by submerged fermentation of Aspergillus niger using cane molasses as raw material; A milestone Design and	Dow University of Health Sciences, Karachi.	karachi	Rizwan Panjwani, Director,New investment opportunities in biotechnology.,Sindh gas Pvt Limited,rizwan@sindhgas.com, +92-21 111 786	Sindh gas Pvt Limited	Karachi	Dr . Shaukat Ali	ali.shaukat@d uhs.edu.pk
54	TDF02-153	Development of Biosorbent Technology for Removal of Heavy Metals from Industrial Effluents using Waste Derived Biomaterials	University of Agriculture, Faisalabad	Faisalabad	Naeem,Director, Textile Printing, United Textile Printing Industries (Pvt) Ltd, United Textile Printing, Industries (Pvt) Ltd, Meehal	United Textile Printing Industries (Pvt) Ltd	Faisalabad	Raziya Nadeem	raziyaanalyst@yahoo.com
55	TDF02-154	EKKO - Wave Therapeutic Device "Fostering a Disability free Society"	NUST Islamabad	Islamabad	Dr. Sajid Gul Khawaja, CTO, RISETech, sajid.gul.2009@gmail.com, 051-1234567, ( RISETech, Office No. 4, 2nd Floor, Malik Iqbal Plaza. SoHan Garden	RISETech,	Islamabad	Dr. Muhammad Usman Akram	usmakram@gmail.com

56	TDF02-157	Design and development of dynamic Power Factor correction controller	UET Peshawar	Peshawar	Iaimur Ahmad, Chief Executive Officer, CREATIVE ENGINEERING & MANAGEMENT SERVICES (CEMS), Phone : H#640, Street#20, Jasmine Block, Sector C	CREATIVE ENGINEERING & MANAGEMENT SERVICES	Lahore	Dr. Abdul Basit	abdul.basit@uetpeshawar.edu.pk
57	TDF02-161	Automatic Weapon Detection in Real-time Videos for Identification of Potential Terrorists and Robbers	FAST National University of Computer & Emerging Sciences	Chiniot	Mr. Rehan Mushtaq, CTO, AI Apps Section, Ingenious Zone (Software House),16/2-A Kehkshan Colony #1, Jaranwala Road – Faisalabad, 041-	Ingenious Zone (Software House)	Faisalabad	Dr. Muhammad Gufran Khan	m.gufran@nu.edu.pk
58	TDF02-162	Commercialization of a novel indigenous methodology to produce menthol crystals to fulfil local market demands	University of Agriculture Faisalabad	Faisalabad	Muhammad Arshad, Chief Executive, Reactor and vessels, PAMICO, OFFICIAL MAILING ADDRESS PAMICO, Shadab Colony, Faisalaba, Telephone: 041-	PAMICO	Faisalabad	Dr. Muhammad Asif Hanif	drmuhammada sifhanif@gmail.com
59	TDF02-163	DEVELOPMENT OF CELL REPLACEMENTS FOR REPAIR OF DAMAGED AND DISEASED ORGANS	University of Punjab, Lahore	Lahore	Shehla Javed Akram, CE, DON VALLEY PHARMACEUTICALS Pvt Ltd, shehlajavedakram@yahoo.com, 04235935196 /	DON VALLEY PHARMACEUTICALS Pvt Ltd,	Lahore	Azra Mehmood	<a href="mailto:azra_mehmood@hotmail.com">azra_mehmood@hotmail.com</a>
60	TDF02-164	Development of Engineering Rubber Compounds for Automotive Applications	NUST Islamabad	Islamabad	Ahmed Hassan, CHENAB ENGINEERING WORKS & FOUNDRIES PVT LTD, DIRECTORS, 0092-41-8751048 ,Email:	CHENAB ENGINEERING WORKS & FOUNDRIES PVT LTD	Faisalabad	Prof. Dr. Nasir Mahmood Ahmad	<a href="mailto:nasir.ahmad@scme.nust.edu.pk">nasir.ahmad@scme.nust.edu.pk</a>

61	TDF02-169	Transforming CEMB-PARB-Biotech maize prototype into viable commercial product for sustainable maize production.	Punjab University Lahore	Lahore	Mr. Amir Aziz Malik, Head Agri farm Services, ceo@aziz-group.com, 061-6537720, ( Agri farm Services, 77-Industrial Estate Multan )	Agri farm Services	Multan	Prof. Dr. Idrees Ahmad Nair	dr.idrees@gmail.com
62	TDF02-171	Design and Development of an Automatic, Robotized and Portable Cleaning System for Solar Photovoltaic Plants	UET Lahore	Lahore	Naeem ul Hassan, General Manager, SolarTech Pvt. Ltd., Email: solartech.naeem@gmail.com , 3rd Floor, Pace	SolarTech Pvt. Ltd.	Lahore	Dr. Waqar Mahmood	director@kics.edu.pk
63	TDF02-172	Design and Development of Capacity Tester for Valve Regulated Lead Acid (VRLA) Batteries as per IEEE Standard 1188	UET Lahore	Lahore	Muhammad Asif Hussain, PhD. Assistant Professor , CERAD UET KSK, asif.hussain@uet.edu.pk	Center for Energy Research and Development , UET	Lahore	Dr. Waqar Mahmood	director@kics.edu.pk
64	TDF02-173	Gadget (Test bench) development for water pump/agricultural tube well energy efficiency measurement and improvement	UET Lahore	Lahore	Mr. Ahmad Hassan, CEO:Chenab Engineering Focal Person: Mr. Bakhtiar Ahmad, (Director Operations) info@chenabfoundries.	Chenab Engineering Works, and Foundries Pvt. Ltd,	Faisalabad	Dr. Tahir Izhar	tizhar@gmail.com
65	TDF02-176	Retrofitting of Brick Kilns to Improve Energy Efficiency and Environmental Impact	NUST Islamabad	Islamabad	Waqar Mehdi, EPC E5. FACTORY / INDUSTRY Al-GHAZI Engineering Works E6. OFFICIAL MAILING ADDRESS	Al-GHAZI Engineering Works	Lahore	Muhammad Bilal Sajid	mbilalsajid@uspcase.nust.edu.pk

66	TDF02-178	Ecofriendly, inland, closed circulatory aquaponic system for sustainable production of vegetables and fish	GC Women University Faisalabad	Faisalabad	M. Tariq Tanveer, CEO, Qadir Bakhsh Farms, Agri tourism development corporation of Pakistan, Email: info@atdcpakistan.com	Agri tourism development corporation of Pakistan	Faisalabad	Prof. Dr. Naureen Aziz Qureshi	naureenaziz.queshi@gmail.com
67	TDF02-180	Indigenized and secure Private IaaS cloud solution with DPI based Policy Enforcement	UET Taxila	Taxila	Ashok Malani CEO, Address: Xflow research inc. Software Technology Park, Service Rd. North, I-9/3 Islamabad, Pakistan	Xflow research inc	Islamabad	Dr. Farrukh Zeeshan Khan	farrukh.zeeshan@uettaxila.edu.pk
68	TDF02-182	Low cost precision agriculture services using high resolution multi-spectral imaging and mapping software	NUST	Islamabad	Fahad Islam Tiwana . TECH Valley Title: CEO Address: Office#215, CIE Building, NUST H-12 Campus, Islamabad Phone 051 -90856279	TECH Valley	Islamabad	Dr. Waqar Shahid Qureshi	waqar.shahid@ceme.nust.edu.pk, waqar.shahid@gmail.com
69	TDF02-187	Development of Low Cost, Engineered, Energy Efficient, Sustainable Housing	UET , Peshawar	Peshawar	Naveed Saeed Khan, Engr, Phone no: 051-5419153, , email : infor@norwestgroup.com, norwestgroup@gmail.com , Norwest group	Norwest group pvt. Ltd.	Rawalpindi	Dr. Mohammad Adil	adil@uetpeshawar.edu.pk
70	TDF02-188	Design & Development of an Intelligent UAS Powered Sustainable Forest Management System	IST Islamabad	Islamabad	Mr. Aamir Majeed, CTO & Co-Founder, Burqstream Technologies, aamir@burqstream.com, 051-5172721, + ( Burqstream	Burqstream Technologies,	Rawalpindi	Dr. Abdul Munem Khan (Professor	munem1961@gmail.com

71	TDF02-192	Prototype development for Enzyme based poultry feed supplement and its use in poultry industry	IIUI Islamabad	Islamabad	Mr. Muhammad Mumtaz, Managing Director, Aulton Pharmaceutical, OFFICIAL MAILING ADDRESS	Aulton Pharmaceutical	Hattar	Dr. Abdul Hameed	Abdul.hameed@iiu.edu.pk
72	TDF02-197	Development of commercial cotton varieties expressing Cr1Ac and Cry2Ab proteins for effective	NIBGE, PIEAS	Faisalabad	Mr. Javed Qureshi; Chief Executive Four Brothers, Lahore, ( Four Brothers, Lahore )	Four Brothers	Lahore	Dr. Shahid Mansoor	<a href="mailto:shahidmansoor7@gmail.com">shahidmansoor7@gmail.com</a>
73	TDF02-203	Development of an assistive device for a visually impaired person.	MUST Mirpur AJK	Mirpur	Mr. Tasar Raheem, owner (Nusrat Pharma), 058264-42300-43944, nusratmsk@hotmail.com Nusrat Pharma Kotli AJK	Nusrat Pharma	Kotli	Dr. Sajjad Manzoor	sajjad.ee@must.edu.pk
74	TDF02-209	INDIGENOUS FABRICATION OF AL <sub>2</sub> O <sub>3</sub> CERAMIC TILES FOR BALLISTIC ARMOUR	NUST Islamabad	Islamabad	Mujatab Hassan, Director; Chenab Engineering Works & Foundries Pvt Ltd, Main Jhumra Road, Nishatabad,	Chenab Engineering Works & Foundries Pvt Ltd	Faisalabad	Dr. Malik Adeel Umer	<a href="mailto:umer.adeel@scme.nust.edu.pk">umer.adeel@scme.nust.edu.pk</a>
75	TDF02-212	DEVELOPMENT OF MODULAR PLUGIN HYBRID ELECTRIC POWERTRAIN PROTOTYPE WITH SCALABILITY FOR	The University of Lahore, Lahore	Lahore	Zubair Aamir, General Manager projects Sazgar Engineering Works Ltd, <b>Registered Office:</b> ( Sazgar Engineering Works Ltd , 88 – Ali Town, Thokar	Sazgar Engineering Works Ltd	Lahore	Dr. Mohammad Aamir	<a href="mailto:mohammad.aamir@uol.edu.pk">mohammad.aamir@uol.edu.pk</a>
76	TDF02-217	Development and Indigenization of Floppy Sprinkler Irrigation System for Future Irrigation	Muhammad Nawaz Shareef University of	Multan	Mr. Ahsan ul Haq, Chief Executive officer, ( m/s Noori Agrolines, Plot No. 03. Ansari Market, Taimoor Road, Multan	Noori Agrolines	Multan	Dr. Sarfraz Hashim	sarfraz.hashim@mnsuam.edu.pk

77	TDF02-223	Development of an assistive device for independence and mobility of paraplegic patients	Air University, Islamabad	Islamabad	Maj Gen Professor Salman Ali, Fazaia Medical College Islamabad, PAF E.9 Complex Islamabad. (051 2281487)	PAF E-9	Islamabad	Dr. Zareena Kausar	zareena.kausar@mail.au.edu.com
78	TDF02-225	Design and development of Anaerobic digestion process with enriched biomethane for power	University of Agriculture Faisalabad	Faisalabad	Mr. Kashif Rafique Arifidi, Managing Director, Fresh Food Farms, kashifrafigafridi@yahoo.com	Fresh Food Farms	Risalpur	Dr. Ehsan Ali	ihsnalidr@gmail.com
79	TDF02-228	VR based neurogaming for mindfulness in children and ADHD patients	UET Lahore	Lahore	Muhammad Atif Nazeer, Director, Information Technology, Toppers' consultant, Address: (Toppers consultant MUHAMMAD ABID	Toppers' consultant	Lahore	Dr. Usman Ghani Khan	usman.ghani@kics.edu.pk
80	TDF02-235	Adoption of Scientific Software (Fluent, Cadence And Matlab) As Cloud Services	NED UET Karachi	Karachi	MUNIF KHAN, M.S - National University of Computer and Emerging Sciences (FAST) SOA	Contour Software (Pvt) Ltd	Karachi	DR. MUHAMMAD ALI ISMAIL	maismail@neduet.edu.pk
81	TDF02-243	Enhancing value addition of milk by developing specialized cheese and cheese spread	University of Agriculture Faisalabad	Faisalabad	Dr. Nasr Minallah, Head MPD, Fauji foods Ltd, nasr.minallah@faujifoods.com (Fauji foods Ltd )	Fauji foods Ltd,	Lahore	Dr. Ayesha Sameen	ayeshasameen@uaf.edu.pk
82	TDF02-244	Cost Effective Production of Essential oils for Pharmaceuticals, Flavor and Cosmetics.	UoP Lahore	Lahore	Mr. SHAHID SAMEER, Managing Director, NS Engineering Concern, nsec786@hotmail.com, 042-36848662 ( NS Engineering	NS Engineering Concern	Lahore	Dr. Shabnam Javed	shabnam.hons@pu.edu.pk



83	TDF02-245	Environment friendly extraction technology of natural flavor, fragrance and food colors from indigenous plant material.	University of Agriculture Faisalabad	Faisalabad	Dr. Zahid Ashraf, Director Ashraf laboratories (pvt) Ltd. info@ashraflabs.com, 041-8847601-02 , Fax: 041-8847607, ( Ashraf laboratories	Ashraf laboratories (pvt) Ltd	Faisalabad	Dr. Muhammad Nadeem Akram	nadeem.akram@uaf.edu.pk
84	TDF02-246	Linking nutrition to cereal brans: production and commercialization of modified bran flours	University of Agriculture Faisalabad	Faisalabad	Mr. Danish Shafi, Director, Operations, Shafi Flour Mill, shafiflourmill@gmail.com, (041) 243 5014, ( Shafi Flour Mill, 19th	Shafi Flour Mill	Faisalabad	Dr. Imran Pasha	ipasha2001@uaf.edu.pk
85	TDF02-261	Traffic Congestion Prediction and Visualization Platform	PIEAS Islamabad	Islamabad	Dr. Shahid Mahmood, CEO, Interactive Group Pvt Ltd Pakistan, Interactive Plaza Plot 10, E-11/3 Markaz (MPCHS), Islamabad Phone: +92 51 222 8571 - 73 Fax: +92 51 2228604	Interactive Group Pvt Ltd	Islamabad	Dr. Irfan Ul Haq Principal Scientist	irfan@email.com; irfanulhaq@pieas.edu.pk
86	TDF02-262	Automating Industrial Supply Chains for Provenance and Compliance Using a Blockchain-based Internet-of-Things Solution	NUST Islamabad	Islamabad	Dr. Saad Bin Qaisar, CTO, Bitsym Private Limited, Islamabad. saad@bitsym.com. . ( Bitsym Private Limited, Islamabad. )	Bitsym Private Limited,	Islamabad	Dr. Taha Ali	taha.ali@seecs.edu.pk

87	TDF02-268	DIGITAL LAND MAPPING FOR MEGA PROJECTS	Air University, Islamabad	Islamabad	Mr. S. M. Osama A. Gillani, CEO, MAPALYTICS (PVT) LTD, gillani@mapalytics.org Tel : Email: gillani@mapalytics.org, osamagillani@gmail.com ( Mapalytics Pvt Ltd, Islamabad, Waqas Abdul Aziz, (	MAPALYTICS (PVT) LTD,	Islamabad	Dr. Ibraheem Haneef	ih122702@gmail.com
88	TDF02-269	Design, Development and Deployment of Mineral Cadastre and Mine Planning and Design System	Karakoram International University	Gilgit	Sindh Engro Coal Mining Company (SECMC) ) Engro Corporation limited, 8th floor, Harbor front building, Marine Drive, Karachi	Sindh Engro Coal Mining Company (SECMC)	Karachi	Dr. Safi Ur Rehman	dr.safi@kiu.edu.pk
89	TDF02-270	Intelligent Energy Efficient Fans for Home and Commercial Users	NED UET Karachi	Karachi	Asad Ishaque Suri, Partner, Mehran Electrons, Address: Plot No. 16, Sector 6A, North Karachi, Karachi, mehranfans@hotmail.com Telephone: 021-26007018	Mehran Electrons	Karachi	Prof. Dr. Saad Ahmed Qazi	saadqazi@neduet.edu.pk
<b>S.No</b>	<b>TDF No</b>	<b>Title</b>	<b>Institute</b>	<b>City</b>	<b>Industry</b>	<b>Industry Name</b>	<b>City</b>	<b>Name of PI</b>	<b>Email of PI</b>
1	TDF03-001	Commercialization And Enhancement Of Aircraft In-Flight Loads Computer Software	UET	Taxila	Dr. Shoab A. Khan, CEO, Centre of Advanced Research in Engineering - CARE, Telephone: +92-51-8432273, Fax: +92-51-8314660-61	Centre of Advanced Research in Engineering - CARE	Islamabad	Dr. Hafiz Adnan Habib	<a href="mailto:adnan.habib@uettaxila.edu.pk">adnan.habib@uettaxila.edu.pk</a>

2	TDF03-003	Efficient Cultivation And Sustainable Production Of Sugarcane Through Mechanization And Enterpenurship By	UO	Sargodha	Email: diamondagrindustry@hotmail.com	Diamond Agricultural Industry University Road.	Sagodha	Dr.Abdul Rehman	<a href="mailto:drabdulrehman18@yahoo.com">drabdulrehman18@yahoo.com</a>
3	TDF03-006	Development Of Lateral Flow Strip And Dipstick To Detect Anti-Infectious Bursal Disease Virus Antibodies	PIEAS	Islamabad	Dr. Farhan Bukhari, GM, UM Enterprises, Karachi , Telephone: +92-21-3506-1616 Fax: +92-21-3506655	UM Enterprises, Karachi	Karachi	Dr. Moazur Rahman	moazur@yahoo.com or moazur.rahman@fulbrightmail.org
4	TDF03-013	Development Of Inexpensive, User Friendly Water Alert Test Kit To Detect	CUI	Islamabad	Abdul Ala Khurram, CEO, Water Care Services, Lahore , watercareservices@gm	Water Care Services, Lahore	Lahore	Prof Dr Robina Farooq	<a href="mailto:drrobinafarooq@cuilahore.edu.pk">drrobinafarooq@cuilahore.edu.pk</a>
5	TDF03-017	Design And Production Of Scientific Equipment For Physics Teaching And Research	LUMS	Lahore	Mr. Muhammad Usama, Director Development, usamausman16@gmail.com, 0552856408,	Osman Engineers, Climaxabad, G.T. Road , Gujranwala, (Near Aleeza	Gujranwala	Dr. Muhammad Sabieh Anwar	<a href="mailto:sabieh@lums.edu.pk">sabieh@lums.edu.pk</a>
6	TDF03-028	lot Based Air Quality Monitoring System With Smart Dashboards	PAF-KIET	Karachi	Mr. Humayun Qureshi, Director IT and Business Consultant, humayun.queshi@datalog.pk, 021 34523868,	DataLog, Suite No 614 Park Avenue, Sharah-e-Faisal, Karachi.	Karachi	Dr. Muhammad Khalid Khan	<a href="mailto:khalid.khan@pafkiet.edu.pk">khalid.khan@pafkiet.edu.pk</a>
7	TDF03-029	Up-Scaling Stabilized Aloe Vera Juice Production And Its Commercialization	PU	Lahore	Mr. SHAHID SAMEER , Managing Director, NS Engineering Concern, nsec786@hotmail.com, 042-36848662	NS Engineering Concern, Suit # 38 Fazal Pura	Lahore	Dr. Shabnam Javed	<a href="mailto:shabnam.hons@pu.edu.pk">shabnam.hons@pu.edu.pk</a>

8	TDF03-031	Beyond Data	NUST	Islamabad	Fateh Khan Malik, Telephone: 051-5766254 , , Email: fatehkmalik@hotmail.com and ceo@falkicapital.com	Falki Capital (Pvt) Ltd.	Islamabad	Dr. Seemab Latif	<a href="mailto:seemab.latif@seecs.edu.pk">seemab.latif@seecs.edu.pk</a>
9	TDF03-037	Development And Upscaling Of Indigenized Anaerobic Digester For The Biotransformation Of Textile Sludge Into The	MUET	Jamshoro	Muhammad Habib Ahmed , Director Operations , Al- Rahim Textile Industries, Plot No. A-188, ROAD NO. 5, S.I.T.E., NOORIABAD, Mr. Ali Syed, CEO, Lets	Rahim Textile Industries	Karachi	Prof. Dr. Rasool Bux Mahar	<a href="mailto:dd.uspcasw@admin.muett.edu.pk">dd.uspcasw@admin.muett.edu.pk</a>
10	TDF03-040	Design and Fabrication of a Safe and Smart Motorcycle Helmet	UET	Taxila	Innovate,24-B, Street 6, Sector H-9/1 Islamabad Pakistan ,a.syed@letsinnovate.net F1	Lets Innovate,24-B, Street 6, Sector H-9/1 Islamabad Pakistan	Islamabad	Dr. Hafiz Adnan Habib	<a href="mailto:adnan.habib@uettaxila.edu.pk">adnan.habib@uettaxila.edu.pk</a>
11	TDF03-045	Development Of A Textile-Based Vest For Vital Signs Monitoring	NTU	Faisalabad	Mr. Aziz Ahmad, CEO Haizum Hitech Textiles, azizahmed99@yahoo.com, 052 3556090,	Haizum Hitech Textiles, Kot Abdul Malik, Lahore	Lahore	Dr. Abher Rasheed	<a href="mailto:abher00@gmail.com">abher00@gmail.com</a>
12	TDF03-047	Development of silk sericin based antimicrobial agent to replace synthetic antimicrobial agents used in textile and	GCU	Lahore	Mr. Muhammad Khalid Siddiqui, Eail: sbrosche@yahoo.com	Siddiqui and Brothe Cheical, OPP. SONERI BANK 49 CIRCULAR ROAD O/S	Lahore	Dr. Hafiz Muhammad Tahir	dr.hafiztahir@gcu.edu.pk; hafiztahirpk1@yahoo.com
13	TDF03-054	Condition Monitoring And Predictive Maintenance Of Fighter Aircraft Hydraulic System Using Machine Learning Algorithms	UET	Peshawar	Dr. Manzar Abbas Wing Commander, PAF, manzar.abbas@gmail.com	Avionics Development Institute,AvDI , Pakistan Aeronautical Complex.	Attock	Dr. Tanvir Ahmad	<a href="mailto:tanvir.ahmad@uetpeshawar.edu.pk">tanvir.ahmad@uetpeshawar.edu.pk</a>

14	TDF03-056	Development Of Smart Socks For Measuring Number Of Calories Burnt	NTU	Faisalabad	Husnain Yousaf,, the_malik84@hotmail.com	Jamal Fabrics	Faisalabad	Dr. Syed Talha Ali Hamdani	<a href="mailto:hamdani.talha@gmail.com">hamdani.talha@gmail.com</a>
15	TDF03-057	Development Of First Drug Candidate From Pakistan For The Treatment Of Epilepsy And Other Central	UOK	Karachi	Dr. Syed Imtiaz Haider Director, Technical Operations The Searle Company Limited	The Searle Company Limited	karachi	Prof. Dr. Farzana	<a href="mailto:afnan.iccbs@gmail.com">afnan.iccbs@gmail.com</a>
16	TDF03-067	Design And Analysis Of Novel Three Phase Hybrid Excited Linear Flux Switching machine For Advanced Electric Power Train	CUI	Islamabad	Mr. Faran Ullah, Chief Executive, info@akpups.com, 091-5812472,	AK Pups Company (Private) Limited, Peshawar, Pakistan.	Peshawar	Dr. Faisal Khan	<a href="mailto:faisalkhan@ciit.net.pk">faisalkhan@ciit.net.pk</a>
17	TDF03-080	Mle30: A Miracle Bio Stimulant	BZU	Multan	ushtaq Ahed, Head of Operations, Production department, kaahed@gail.co, 051-1234567,	HEXON Cheicals Pvt Ltd / anufacturing Unit	Multan	Dr. Azra yasmeen	<a href="mailto:azra.yaseen@bzu.edu.pk">azra.yaseen@bzu.edu.pk</a>
18	TDF03-082	Quantitative Gmo Detection Of Rice For Compliance Of International Trade Requirements	PIEAS	Islamabad	Dr. Sameer Qureshi Naeem, Chairman REAP, Office address: Room No. 405/421, 4th Executive Floor, Sadiq Plaza The Mall, Lahore	Rice Exporters Association of Pakistan (REAP)	Lahore	Dr. Muhammad Asif	<a href="mailto:asif.biosafety@gmail.com">asif.biosafety@gmail.com</a>
19	TDF03-084	Peekafood – A Digital Menu For Restaurants Based Augmented Reality And Artificial Intelligence	NUST	Islamabad	Mr. Najm Us Saqib Bajwa, Managing Director, najm.bajwa@nuqtasol.com,	NuqtaSol	Islamabad	Dr. Osman Hasan	<a href="mailto:osman.hasan@seecs.edu.pk">osman.hasan@seecs.edu.pk</a>

20	TDF03-087	Indigenous Development Of Smart, Safe & Comfortable (S2C) Helmets For Civil And Combat Applications	NTU	Faisalabad	Taqerrub Raza Sayeed, Sr. Manager Technical Mktng, Technical Services & Business Development, tagerrub.raza@itextiles	iTextiles Pvt. Ltd. 2nd floor Bahria Complex IV main Khaliq uz Zaman	Lahore	Dr. Yasir Nawab	<a href="mailto:ynawab@ntu.edu.pk">ynawab@ntu.edu.pk</a>
21	TDF03-090	Development Of Low-Cost Living Green Walls Technology For Air Cleaning, Food Security And Aesthetic Gratification Urban	BZU	Multan	Mr. Tariq Tanveer, CEO Agri-Tourism Development Corporation of Pakistan, info@atdcpakistan.com	Agri-Tourism Development Corporation of Pakistan	Faisalabad	Dr. Aamir Nawaz	<a href="mailto:aamirnewaz@bzu.edu.pk">aamirnewaz@bzu.edu.pk</a>
22	TDF03-097	Development Of A Scalable Heterogeneous Supercomputer	Riphah	Islamabad	Miss Amna Haider, amna@ucerd.com	Unal Color of Education Research and Development Private Limited	Islamabad	Dr. Tassadaq Hussain	<a href="mailto:tassadaq.hussain@riphah.edu.pk">tassadaq.hussain@riphah.edu.pk</a>
23	TDF03-103	Development Of Textile Based Smart Sensor For Human Health Monitoring	NTU	Faisalabad	Hasham Khan, Email:hasham@hansamfg.com	Hansa Leather Garments	Sialkot	Dr. Zulfiqar Ahmad Rehan	<a href="mailto:zarehan@ntu.edu.pk">zarehan@ntu.edu.pk</a>
24	TDF03-106	Development Of Durable, Light Weight And Smart Luggage Bags From Composite Materials	NTU	Faisalabad	Muhammad Badar Munir, Reaserch & Development head, 052-3575390, rndcomp@akc.com.pk	ANWAR KHAWAJA COMPOSITES, SIALKOT	Sialkot	Dr. Khubab Shaker	shaker.khubab@gmail.com, khubab@ntu.edu.pk
25	TDF03-111	Development Of Low Cost And Sustainable Nonwoven Fabric Filters To Improve The Quality Of Intake Air By Humans And Machines	NTU	Faisalabad	Abid Omar, Phone: +92 21 3506 1044, +92 21 3506 1753 Email: abidomar@syntechfibres.com	Syntech Fibres (Pvt.) Ltd.	Karachi	Dr. Ahsan Nazir	<a href="mailto:ahsan@ntu.edu.pk">ahsan@ntu.edu.pk</a>

26	TDF03-112	Functional, Light Weight, Durable And High Strength Detachable Composite Furniture For Indoor	NTU	Faisalabad	Muhammad Badar Munir, Reaserch & Development head,, 052-3575390, rndcomp@akc.com.pk	ANWAR KHAWAJA COMPOSITES, SIALKOT	Sialkot	Dr. Muhammad Umair	umair.ntu@gmail.com, mumair@ntu.edu.pk
28	TDF03-128	Development Of Herbal Health Supplements For The Management Of Parkinson'S Disease	UOK	Karachi	Syed Imtiaz Haider, Ph.D., Director Technical Operations syed.haider@searlecompany.com, +92 21 35111111	The Searle Company Limited ,5-319,S.I.T.E Karachi	Karachi	Prof. Dr. Muhammad Iqbal Choudhary	<a href="mailto:iqbal.choudhary@iccs.edu">iqbal.choudhary@iccs.edu</a>
29	TDF03-132	Introduction Of Innovative In-Pond Raceway System Technology To Improve Aquaculture Production In Sustainable And	LCWU	Lahore	Kamran Maqsood , Chief executive of Super Punjab Feed and Farms, Multan , Plot # 323,324 Punjab Industrial Estates Phase	Super Punjab Feed and Farms, Multan, SoyPak, Karachi	Karachi	Shafaq Fatima	<a href="mailto:shafaq.fatima@y7mail.com">shafaq.fatima@y7mail.com</a>
30	TDF03-138	Micropropagation Of Commercially Important Ornamental Plants	JUW	Karachi	Juw start up project	Jinnah university for women, Karachi	Karachi	Dr. Syeda Kahkashan kazmi	<a href="mailto:kahkashank1@gmail.com">kahkashank1@gmail.com</a>
31	TDF03-144	Early Disease Detection In Fruit Plants Using Deep Learning	FATA University	Kohat	Mr. Sajid Ur Rehman, expertsvision@live.com	Eveati (Pvt) Ltd #108 Cubator1ne COMSATS University	Islamabad	Dr. Bilal Jan	<a href="mailto:bilal.jan@fu.edu.pk">bilal.jan@fu.edu.pk</a>
32	TDF03-146	Development Of Microwave Assisted Sustainable Extraction Cum Drying Technique For Fruits/Vegetables Preservation	UAF	Faisalabad	Engr. Rehan Akmal, CEO, HotTek, Faisalabad, rehan@hotteck.com , 041-8737029,	HotTek, 285 Jhumra Road Mansoorabad, Faisalabad	Faisalabad	Dr. Muhammad Kashif Iqbal Khan	<a href="mailto:kashif.khan@uaf.edu.pk">kashif.khan@uaf.edu.pk</a>

33	TDF03-149	Development Of Comfortable Compression Socks For Treatment Of Varicose Veins Or Chronic	NTU	Faisalabad	Saqib Nisar, saqib@sockoye.com	Sockoye,110 F SUI GAS CO OPERATIVE HOUSING SOCIETY ,	Lahore	Dr Hafsa Jamshaid	<a href="mailto:hrntu@hotmail.com">hrntu@hotmail.com</a>
34	TDF03-150	Post-Mortem Aging Technology: A Way To Improve Nutritional And Sensorial Quality Of	UAF	Faisalabad	Mr. Nasib Ahmed Saifi, CEO, Anis Associate, ceo@saifi-group.com	Anis Associates Meat Processing	Kasur	Dr. Muhammad Issa Khan	<a href="mailto:drkhan@uaf.edu.pk">drkhan@uaf.edu.pk</a>
35	TDF03-151	Technology Development For Industrial Production Of Mango Kernel Oil	BZU	Multan	Sheikh Ahsan Rashid Ph: 061-4482741-46. Email: ceo@shamaghee.com	Hafeez Ghee & General Mills (Pvt.) Ltd.	Multan	Dr. Saeed Akhtar	<a href="mailto:saeedbzu@yahoo.com">saeedbzu@yahoo.com</a>
36	TDF03-154	Pilot Scale Generation Of Epichlorohydrin From Glycerin: A Key Step Towards Value Added Products	UAF	Faisalabad	Mr. Ebrahim Zulfiqar, Director, Ressichem International , zulfiqar@polymerxs.com, 021-111052052,	Ressichem International, D-83. SITE, Karachi, Pakistan	Karachi	Dr. Muhammad Abid Rashid	<a href="mailto:marashid@uaf.edu.pk">marashid@uaf.edu.pk</a>
37	TDF03-160	Breast Care – Design And Development Of Low-Cost And Safe Microwave Imaging System For Early Breast Cancer Screening At Gp Clinics And Hospitals Motorway To Safety:	ITU	Lahore	Dr. Shehla Javed Akram , Akram Medical Complex PVT Limited, - B, Main Gulberg, Lahore, Pakistan, email:akrammedicalcomplex@gmail.com	Akram Medical Complex PVT Limited, Lahore	Lahore	Dr Muhammad Zubair	muhammad.zubair@itu.edu.pk ; m.zubair.engr@gmail.com
38	TDF03-169	Design And Development Of An Intelligent System For Active Traffic Management And	LUMS	Lahore	Registered ,CEO Robotics and Automation Solutions, Digital Transformation Centre of Excellence	Digital Transformation Centre of Excellence (pvt) Limited,	Lahore	Dr. Zubair Khalid	<a href="mailto:Zubair.khalid@lums.edu.pk">Zubair.khalid@lums.edu.pk</a>



39	TDF03-171	Plug And Play microgrid Interface Kit For Standalone Solar Pv And Ups Backup Systems	LUMS	Lahore	Jeremy Higgs, Co-Founder and COO, EcoEnergy Pvt Ltd, jeremy.higgs@gmail.com;	EcoEnergy Pvt Ltd. <a href="https://ecoenenergyfinance.org/">https://ecoenenergyfinance.org/</a>	Karachi	Dr.Hassan Abbas Khan	<a href="mailto:hassan.khan@lums.edu.pk">hassan.khan@lums.edu.pk</a>
40	TDF03-172	In Vitro Macro And Micro Propagation Of Allantoin (From Shrub) For Commercialization To Cosmetic Industry.	GCWU	Faisalabad	Muhammad Ashaq Paracha, CEO, Delta Pharma, Pakistan, Nowshera, Risalpur, Khyber Pakhtunkhwa, Dr. Farman Bukhari,	Delta Pharma (PVT), Ltd. Pakistan	Risalpur	Dr. Nusrat Shafiq	gqumarin@gmail.com, dr.nusratshafiq@gcwuf.edu.pk
41	TDF03-183	Time Quantitative Pcr Based Ready To Use Kits For The Detection Of Important Viral Diseases	PIEAS	Islamabad	GM, UM Enterprises, Karachi , Telephone: +92-21-3506-1616 Fax: +92-21-3506655 Email: <a href="mailto:um@um.com">um@um.com</a>	UM Enterprises, Karachi	Karachi	Dr. Imran Amin	<a href="mailto:imranamin1@yahoo.com">imranamin1@yahoo.com</a>
42	TDF03-184	Development Of A Wearable Continuous Glucose Monitoring System For Diabetes	LUMS	Lahore	Mr. Farrukh Usman, CEO, Byonyks, farrukh@byonyks.com, 042-35844423 ,	Byonyks, Biomedical Devices Industry, 155-C Model	Lahore	Dr. Safee Ullah Chaudhary	<a href="mailto:safee.ullah.chaudhary@gmail.com">safee.ullah.chaudhary@gmail.com</a>
43	TDF03-185	Development Of An Enriched Composite Bio-Organic Fertilizer “Bio-Cowpostsuper” From	PIEAS	Islamabad	Shabbir Hussain Chawla, CEO, Chawla Dairy Farms, , chawlapak@gmail.com,	Chawla Dairy Farms	Faisalabad	Dr.Asma Imran	<a href="mailto:asmaaslam2001@yahoo.com">asmaaslam2001@yahoo.com</a>
44	TDF03-198	Process Development For Industrial Scale Cleaning Of Aflatoxins From Rice Through Ultraviolet Irradiation	PIEAS	Islamabad	Mr. Zahid W. Khawaja, Tel: 42 35869256, zwkhawaja@gmail.com	AGROCO, 81 – Aibak Block, New Garden Town, Lahore 54600, Pakistan	Lahore	Dr Mazhar Iqbal	<a href="mailto:hamzagondal@gmail.com">hamzagondal@gmail.com</a>

46	TDF03-206	T-Eye: Threat Intelligence Platform	CUI	Islamabad	Mr. Mahir Mohsin Sheikh, CEO, mahir@infosecurity.com.pk, +92 51 5524181 ext 104	Trillium Information Security Systems, AWT Plaza Gul	Rawalpindi	Dr. Masoom Alam	<a href="mailto:masoom.alam@comsats.edu.pk">masoom.alam@comsats.edu.pk</a>
47	TDF03-211	Eye Smart Helmet	UOB	Balochistan	Mr. Ali Gul, CEO of Gul Technology, alidotgul@gmail.com	Technology Pvt Limited Zarghon	Quetta	Dr. Waheed Noor	<a href="mailto:a.waheed.noor@gmail.com">a.waheed.noor@gmail.com</a>
48	TDF03-213	Development of Bio-Yogurt Using Fruits And Probiotics	UoP	Rawlakot	Muhammad Shahzad Rasheed, General Manager Production, department, shahzad.achha@gmail.	ACHHA FOODS PVT LIMITED, 25 KM – Manga Raiwind	Lahore	Dr. Saima Rafiq	<a href="mailto:saimaft2009@gmail.com">saimaft2009@gmail.com</a>
49	TDF03-214	To Develop And Install A Prototype Hydro-Powered Water Pump And Electricity Generator	KIU	Gilgit	Hayat Baig, Baig & Baigs Engineering Company hayatbaig@hotmail.com,	Baig & Baigs Engineering Company Hyder Market near	Gilgit	Prof. Dr. Attaullah Shah	<a href="mailto:vc@kiu.edu.pk">vc@kiu.edu.pk</a>
50	TDF03-215	X-Band Rf Frontends For Airborne Aesa Radar	NUST	Islamabad	Mr. Tahir Abbas, Project Manager, tahir@rwrlimited.com, 051-4449367-8,	RWR (Pvt.) Ltd, Plot 219A, Street 7, I-9/2, Islamabad	Islamabad	Dr. Hammad M. Cheema	<a href="mailto:hammad.cheema@seecs.edu.pk">hammad.cheema@seecs.edu.pk</a>
51	TDF03-219	Smart Traffic Profiling For Intelligent Road Transportation	NUST	Islamabad	Dr. Mansoor Shaukat, CEO, Technology Spirits, mansoor@tspirits.com,	Technology Spirits, Nayatel	Islamabad	Dr. Shahzor Ahmad	<a href="mailto:shahzor.ahmad@gmail.com">shahzor.ahmad@gmail.com</a>
52	TDF03-226	Design And Development Of Vacuum Forming Machine	NUST	Islamabad	Mr. Fiaz Kiani, Glow Sign, H NO 20, LANE NO 2, FAISAL COLONY CHAKLALA, Rawalpindi Pothohar Town	Glow Sign	Rawalpindi	Dr. Mian Ashfaq Ali	<a href="mailto:mian.ashfaq@smme.nust.edu.pk">mian.ashfaq@smme.nust.edu.pk</a>

53	TDF03-230	An Automated Machine Learning Based Solar Powered Aquaponics System (TDF02-178) Invite PI & Team to work closely to develop better project)	NUST	Islamabad	M. Tahir Qaseem, DO Operations (Management), Yoniflora®, Office No. B-15, B-16, Shalimar Palaza, F-8 Markaz Islamabad	Yoniflora®, Office No. B-15, B-16, Shalimar Palaza, F-8 Markaz Islamabad	Islamabad	Dr. Noshawan Shoaib	<a href="mailto:noshawan.shoaib@seecs.edu.pk">noshawan.shoaib@seecs.edu.pk</a>
54	TDF03-239	Implementation Of Our Prototype Elisa Test For Screening Blood Samples Of Man And Food Animals	UVAS	Lahore	Mr. TAJ -UD-DIN SHAD Ali Trading Corporation Email: tajdin98@yahoo.com	Ali Trading Corporation, Dewan Centre, 5-Temple Road,	Lahore	Dr. Muhammad Imran Rashid	<a href="mailto:imran.rashid@uvass.edu.pk">imran.rashid@uvass.edu.pk</a>
55	TDF03-240	showcasing R&D efforts in Pakistan with special reference to positive image building of the Higher Education	SZABIST	Islamabad	Mr. Farooq Rao , Production department, 92-42-7444411, 92-42-7440262	PTV NEWS A.F Studios, 1st Floor Salman Plaza Moon	Lahore	Dr. Wajid Zulqarnain	<a href="mailto:wajidgeo@yahoo.com">wajidgeo@yahoo.com</a>
56	TDF03-247	Design, Development And Production Of Hardware Based Gel Documentation System	Bahria University	Karachi	Dr. Ibrar Ahmad, CEO Alpha Genomics PVT Ltd, ceo@alphagenomics.com	Alpha Genomics PVT Ltd, Plot 4-c Danival	Islamabad	Dr. shujaat Khan	<a href="mailto:shujaatkhan@gmail.com">shujaatkhan@gmail.com</a>
57	TDF03-249	Automation Of Real Estate Business Processes Engineering Using Map Personalization And Recommendation	NUST	Islamabad	Ms. Fizza Waqar. Director, GIS Plus Total Solutions Pvt. Ltd.,fizza.waqar@gisplus.net	GIS Plus Total Solutions Pvt. Ltd.	Islamabad	Dr. Muhammad Ali Tahir	<a href="mailto:ali.tahir@igis.nust.edu.pk">ali.tahir@igis.nust.edu.pk</a>
58	TDF03-253	Development Of Ir Camouflage Shelters Utilizing Baluchi Wool Based Composites	BUITEMS	Quetta	Mr. Marcel Stallen, Chief Technical Advisor, FOA, , marcel.stallen@fao.org	Food & Agriculture Organization of the United Nations		Dr. Syed Zameer Ul Hassan	<a href="mailto:syed.zameer@buitms.edu.pk">syed.zameer@buitms.edu.pk</a>
59	TDF03-257	Value Addition For Local Artificial Jewelry Industry Through Electroplating Process	LUMS	Lahore	Mr. Rasheed Ray (Ray Gold Pakistan) 0321-7274333 & Mr. Tanveer Ahmad (Oxford	Ray Gold Pakistan & Oxford Jewellery	Lahore	Dr. Salman Noshear Arshad	<a href="mailto:salman.arshad@lums.edu.pk">salman.arshad@lums.edu.pk</a>

60	TDF03-260	Defender: Hardware Trojan Resilient Processor Core	UET	Taxila	Dr. Muhammad Yasir Qadri, General Manager (Technical), yasirqadri@acm.org, 051-906726113,	NESCOM, Government Sector	Islamabad	Dr. Waqar Ahmad	<a href="mailto:waqar.ahmad@uettaxila.edu.pk">waqar.ahmad@uettaxila.edu.pk</a>
61	TDF03-262	Low Cost Production Of Probiotic As Supplement For Poultry Feed	GCU	Lahore	Dr. Muhammad Arshad, Chief Executive, Hi-Tech Feeds (Pvt) Ltd, dmarshad@gmail.com, 0422-5409447	Hi-Tech Feeds (Pvt) Ltd	Lahore	Dr. Muhammad Nauman Aftab	<a href="mailto:nauman535@yahoo.com">nauman535@yahoo.com</a>
62	TDF03-265	Industry 4.0 Process Virtualization System	NUST	Islamabad	Ali Haider Arif, CTO, alihaiderarif@gmail.com,	Agilitron (Pvt) Limited	Islamabad	Dr Ali Hassan	<a href="mailto:alihassan@ce.me.nust.edu.pk">alihassan@ce.me.nust.edu.pk</a>
63	TDF03-266	Commercialization Of Biofertilizers For Sustainable Production Of Legumes And Cereals	UAF	Faisalabad	Dr. Maqbool Akhtar , Deputy General Manager, Technical & Business Development ,	Jaffer Brothers Pvt Ltd.	Lahore	Zahir Ahmad Zahir	<a href="mailto:zazahir@uaf.edu.pk">zazahir@uaf.edu.pk</a>
64	TDF03-267	Design And Development Of Multilayered Armour Protection System	NUST	Islamabad	Dr Waheed Ul Haq, Managing Director, AARDIC, HIT, Taxila wuhsyed@gmail.com	Heavy Industries Taxila (HIT), Taxila, Pakistan	Taxila	Dr. Aamir Mubashar	<a href="mailto:aamir@smme.nust.edu.pk">aamir@smme.nust.edu.pk</a>
65	TDF03-269	Durable And Cost-Effective Fan Dimmer With No Humming Sound And Effect Of Ups	FAST	Islamabad	Munammad Arsalan Qureshi, Email: arsalan.qureshi@starcofans.com	U.I. Industries (Starco Fans)	Gujrat	Dr. Ataul Aziz Ikram	<a href="mailto:ata.ikram@nu.edu.pk">ata.ikram@nu.edu.pk</a>

66	TDF03-274	Epic-A Wearable Epilepsy Monitoring Device	NUST	Islamabad	Mr. Ali Saeed Khan, CEO, RISETech, ali@risetech.pk, ceo@risetech.pk	RISETech, Office No. 4, 2nd Floor, Malik Iqbal Plaza, SoHan Garden Housing Society, Islamabad	Islamabad	Dr. Sajid Gul Khawaja	sajid.gul.2009@gmail.com, sajid.gul@ceme.nust.edu.pk
67	TDF03-277	Development of Hybrid Solar Inverter	UET	Lahore	Shazeb Javid Kathore, Founder, Chairman & Chief Executive Officer and Director of Engineering at Advanced Systems (pvt)	Advanced Systems (pvt) Ltd., 34-A Satellite Town, Gujranwala	Gujranwala	Dr. Tahir Izhar	<a href="mailto:tizhar@gmail.com">tizhar@gmail.com</a>
68	TDF03-283	Development Of Eco-Friendly Mosquito Repellent And Thermal Camouflaged Fabric For Security Personnel	UMT	Lahore	Nishat Mills Ltd. Muhammad Anwar, Manager RD & QC	5 Km Nishat Avenue Off 22 Km Ferozpur Road Lahore	Lahore	Dr. Mumtaz Malik	<a href="mailto:mumtaz.malik@umt.edu.pk">mumtaz.malik@umt.edu.pk</a>
69	TDF03-294	From Bench To Bank: Effective Production Of Carboxymethylcellulose (Cmc) From Agro-Industrial Waste	PU	Lahore	Munhammad Naveed Ashraf, R&D Manager, SRC (Pvt) LTD (A Siddiq Shafi Group Company), naveed.ashraf@src.com	SRC (PVT) LTD (A Siddiq Shafi Group Company), Head Office / Plant: 3-KM	Lahore	Dr. Maliha Uroos	malinauroos@pu.edu.pk, maliha_uroos_pk@hotmail.com
70	TDF03-296	lot Based Industrial Load Monitoring And Management System	NUST	Islamabad	Dr. Fahim Farid, 744 7810184734 fahim@sciflair.com ; Ahmad Hassan (Chief Executive)	Sciflair Pvt. LTD Unit 17 Apex Court Woodlands Bradley Stoke	Faisalabad	Dr. Shahzad Younis	<a href="mailto:muhammad.shahzad@seecs.edu.pk">muhammad.shahzad@seecs.edu.pk</a>

71	TDF03-299	"Target Location Finder" :2D/ 3D Acoustic Target Locating System	UET	Lahore	Amir Riaz, amirriaz@ansassociates .net	ANS Associates, Third Floor, Flat # 5, Abrar Business Center, Wahdat Road, Lahore	Lahore	Dr. M. Tahir	<a href="mailto:mtahir@uet.edu.pk">mtahir@uet.edu.pk</a>
72	TDF03-300	Automatic Detection And Localization Of People Buried Under Rubble In Post-Disaster	UET	Lahore	Inam Elahi Rana ,Director , Bismillah Electronics ,51-A Abu Bakar Block, New	Bismillah Electronics	Lahore	Muhammad Tahir	<a href="mailto:mtahir@uet.edu.pk">mtahir@uet.edu.pk</a> ,
73	TDF03-301	Sustainable Production Of Processed Fish Meat And Value-Added Fish By-Products	UVAS	Lahore	Muhammad Shumayl Ali Zahid, CEO, Royal Fish (pvt) Ltd. Email: shumayl@gmail.com, Address: Hagi House	Royal Fish (pvt) Ltd, UVAS, Lahore	Lahore	Dr. Muhammad Hafeez-ur- Rehman	<a href="mailto:mhafeezurehman@uvas.edu.pk">mhafeezurehman@uvas.edu.pk</a>
74	TDF03-313	Vap lot Lab	NUST	Islamabad	Abbas Ali Mirza, CEO, Abbas.Ali@relacom.com.pk,	Silverback (Pvt) Limited	Islamabad	Dr. Shoab Ahmed Khan	<a href="mailto:shoab@carepvtttd.com">shoab@carepvtttd.com</a>
75	TDF03-331	Design, Analysis, Development And Ground Testing Of Retractable Landing Gear System (Rlgs) Mechanism For Medium	NUST	Islamabad	Pakistan Aeronautical Complex, Kamra	Pakistan Aeronautical Complex, Kamra	Kamra	Dr Syed Irtiza Ali Shah	<a href="mailto:irtiza_shah@gatech.edu">irtiza_shah@gatech.edu</a>

76	TDF03-332	Design, Analysis, Development And Testing Of Titanium/Carbon Metal Matrix Composite Strut For Retractable Landing	NUST	Islamabad	Pakistan Aeronautical Complex, Kamra	Pakistan Aeronautical Complex, Kamra	Kamra	Dr Syed Irtiza Ali Shah	<a href="mailto:irtiza_shah@gatech.edu">irtiza_shah@gatech.edu</a>
77	TDF03-337	Development Of A Solar Assisted, Desiccant-Based Indirect Evaporative Air Conditioner	UET	Taxila	Syed Fawad Tariq Jafri, Director, KoldKraft Refrigeration Pvt LTD, Quaid-e-Azam Industrial Estate Kot Lakhnat, Lahore 54770	KoldKraft Refrigeration Pvt LTD	Lahore	Dr. Muzaffar Ali	<a href="mailto:Muzaffar.ali@uettaxila.edu.pk">Muzaffar.ali@uettaxila.edu.pk</a>
78	TDF03-338	Development Of Conductive Fabric And Conductive Films For Development Of Smart Garments	NTU	Faisalabad	Mr. Bilal Tufail Bhatti, C.E.O, bilal.bhatti@outso.se, 0321-9664146, +46 76 8010068	Outso Wearables Pvt Ltd, Plot# 5, Near Stahlco	Lahore	Dr. Zafar Javed	<a href="mailto:zafar@ntu.edu.pk">zafar@ntu.edu.pk</a>