NEWSLETTER

OCTOBER, 2022





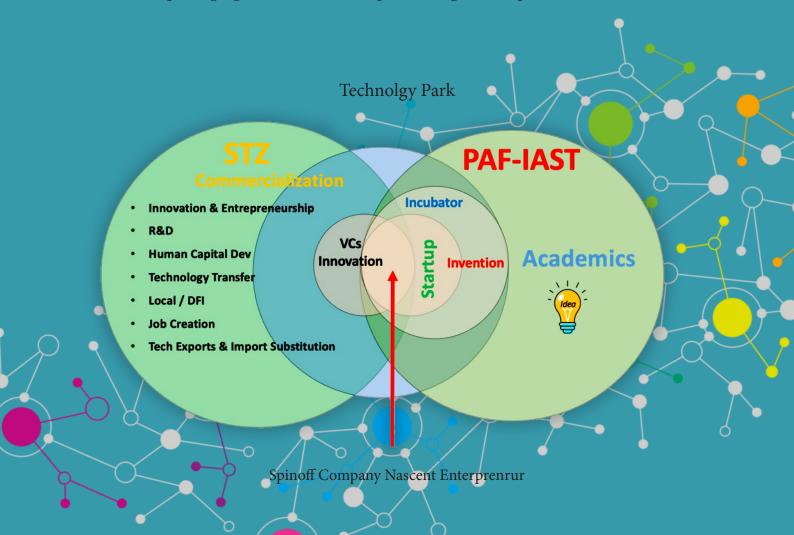




Innovation Technology Park (ITP) constructed at Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology, Mang – Haripur is seven (07) story tower infrastructure with a covered area of around 80,000 sq ft.

The ITP is envisaged to provide intellectual platform for the development of export-oriented innovative solutions through incubation of technologies and company spin-offs to work in tandem with the Technology Parks of foreign collaborators, both in Austria and China.

The ITP offers conducive environment for entrepreneurs and industry leaders to focus and build on their intellect help bringing socio-economic impact through start ups.



Entrepreneurial Universities offer a glimpse of the future,

Dr. Atta ur Rehman,

Chairman, Advisory Board, Co-Chair BoG PAF-IAST

A strong knowledge economy

Three important aspects of PAF-IAST, are:

• The Integrated Technology Park and Business Development Centre: This is the most important part of this entrepreneurial university. It provides free space for software and product development with grants from the university and other authorities.

The success of PAF-IAST university will thus be measured not just by research publications in high impact journals or PhD output but primarily by innovation – the number of new successful start-ups, new products developed that have been commercialised and international patents awarded.



Business development is closely linked to PAF-IAST university education and training and faculty members are expected to start their own companies or be consultants to other companies. Experts in business, including investment and exploitation of intellectual property rights, are appointed as visiting faculty. Business angels, investors and legal experts are made available when required.

- Research and innovation funds: Research and innovation funds are available to support the development of projects within the university and the technology park. About US\$10 million has been set aside to support new product development. A major land endowment has also been established, the income from which will be used to foster innovation and entrepreneurship.
- Role of industrialised nation partners: The scheme offers benefits both to the foreign partner countries and Pakistan. The academic leaders and business leaders from these countries are helping to raise the university's standards of education, research and innovation to an international level. Intellectual property rights will be shared with them for commercial products developed.

It is clear that there are exciting changes now occurring in the academic landscape of Pakistan. These entrepreneurial universities of engineering and technology are expected to contribute in a major way to the development of a strong knowledge economy and to enhance national exports of high value-added technology products.





Dr. Mohammad Mujahid, Pride of Performance Rector, PAF-IAST

PAFIAST first-of-its-kind hybrid institution, with three streams namely, (i) Fachhochschule, (ii) Research Centers, and (iii) Innovation Technology Park (ITP) are being established simultaneously. The objective of the PAFIAST is to provide a well-grounded holistic plan for the development of Pakistan into an industrialized nation, as described in the slogan adopted, 'Skilling Pakistan'. The concept is based firmly on linking the tertiary technology-based education and the high technology industry of leading industrialized countries to PAFIAST in Pakistan. Therefore, ITP is expected to play a key role in attracting leading high-technology foreign companies to Pakistan while also serving to provide an outlet for the creative talents of Pakistani engineers graduating from the PAFIAST. The



close link between education provided by the PAFIAST and the opportunities for commercialization available at ITP will empower the PAFIAST in a manner hitherto unknown in Pakistan.

The technology park has a dual purpose. It will provide initial employment and entrepreneurial possibilities to the graduates, and it will be a focus for the inward flow of technological enterprises to Pakistan. Establishment of Innovation Technology Park, integrated into PAFIAST, will host three distinct components:

- 1. Incubator centres for start-up companies initiated by Pakistani and Austrian/Chinese inventors who choose to become entrepreneurs and start high-technology companies.
- 2. Shell buildings for small and medium-size high-tech companies Pakistani, Austrian, Chinese, or joint ventures who wish to take advantage of the proximity of the PAFIAST and the ready access to well-qualified engineers with Austrian/Chinese degrees graduating from the university.
- 3. A few plots of land will be designated for attracting major or global companies, to set up regional R&D centers, and small-scale high-tech production activities and sophisticated computer-based services.

The technology park companies will offer opportunities for employment to PAFIAST graduates. The park companies will also provide a steppingstone for employment in industry in Pakistan or abroad.







Promotion of Startup Culture @ PAF-IAST

Dr. Qamar MalikProfessor of Practice
Lead: Technology Park & STZ

Technology Park & STZ:

Academia provides intellectual platform, offering important resources for inventions through academic intellect. These inventions need to be transformed into meaningful innovations having significant economic and societal impact. It's worth mentioning inventions alone are not innovations; Innovation is the result of a passionate painstaking roller coaster journey that results in commercial able end product employing ingenious technologies. On the same note there are several traditional routes for dissemination of new knowledge as a result of basic research at universities includes; traditional publications, generating intellectual property that may lead to business case rarely establishing a company.

Alternately, in an entrepreneurial world knowledge is disseminated by transforming new knowledge into a valuable commodity as a result of academic exercise that can be commercialized through academic entrepreneurship. In university; faculty, students and researchers, their proof of concept leads to benchscale prototyping as one would expect incumbants initiate interaction with the industrial ventures at this stage. Usually, intended stepping stone prior to commercialization turns out to be a disappointment. Appreciating the missing link academics have realised importance of embryonic academic entrepreneurship coupling it through incubation and mentorship by a highly qualified qualified personnel (HQP) having decades of experience in corporate sector inclusive of research and academic institutes. This rare breed is brought in through *Professors of Practice* at PAF-IAST, an external driver for seamless transformation of inventions into innovation while integrating an imperative factor, "marketing", another external driver a different level of integration to outside world. Multiprong multistage approach opted is all about the cross fertilization of philosophies and the manifestation of opportunities eventually leading to the evolution of new companies resulting in the transformation of researchers into leaders for positive socio-economic impact.

Pak Austria Fachhochschule; Institute of Applied Sciences & Technology (PAF-IAST) concept stems from the slogan "Skilling Pakistan" and envisages creating highly credible technical education infrastructure both at tertiary and Hi-tech industry levels. With this twin-aim concept the PAF-IAST is a quantum leap forward in the fast burgeoning, knowledge-based economy far beyond a mere educational program. Unprecedented initiative and the most important track is focused on the promotion of innovation and entrepreneurship with a *dynamic innovation technology park*. Innovation fund is to be allocated for the faculty and major programs for the development of industrial products to promote entrepreneurial eco-system for knowledge-based economy.





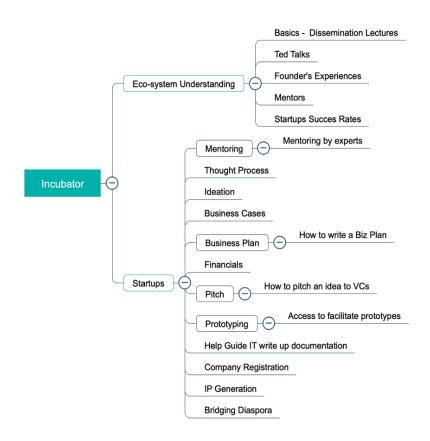
PAF-IAST has self-assured to take up the challenge given to ensure that the university produces at least one novel product a year that is commercialized so that the university becomes a leader in the region promoting innovation and entrepreneurship not involved in just conventional teaching and basic research.

PAF-IAST is poised to offer world class training programs for entrepreneurship and emerging technologies through their affiliate establishment of Innovation Technology Park to work as catalyst commercializing novel products, developing entrepreneurial ecosystem steer commercialization facilitate manage and operate external corporate and financial drivers.

In order to promote start up culture at PAF-IAST, Innovation Technology Park is to manage the incubator, innovate café, center for professional development and consultancy. Tangible outcome of the incubator within technology park is to help mushroom start-ups led by the faculty, students, professionals steering to spin-offs. The Incubator within the Technology Park is designed on successful Silicon Valley model, has vital role to play from concept to commercialization worth \$ millions.

Monitoring the effectiveness of the incubation program pre-defined KPIs are to be met while incubatees are to be mentored at the incubator for developing and understanding ecosystem not limited to; dissemination lectures, Ted talks style sessions, founders experiences, opportunities in global perspective, success stories and the list goes on.

Follow up to initial critical thinking approach it's mandatory after successful cohort incubatees undergo four to six months of a mentoring session, below shared mind map is illustrative of such activities and facilities at Innovation Technology Park, to promote start up culture at PAF-IAST.







Innovate café

Innovate café at the Innovation Technology Park will be instrumental in developing linkages helping promote the entrepreneurial ecosystem through Spin-offs. It's envisioned that Innovation Technology Park will be world-class intellectual platform nurturing facility for interaction between researchers, scientists, incubatees, faculty, students, industry, venture capitalist. The incubation platform is to support technology and engineering communities committed to innovation on a bigger canvas connecting entrepreneurs, mentors, researcheZrs, intellectuals, investors, experts, faculty, and students beyond the geographical boundaries.



Sustainable Initiative

Silicon Valley incubation is the model of choice at PAF-IAST, envisioned model will be instrumental in executing on-ground operations with the intent of making the largest entrepreneurship training and incubation program in Pakistan. Venture partnership is to appreciate indigenous dynamics complementing incubation related activities while in a professional capacity is unparalleled in this part of the World. The pool of resources of highly qualified global mentors committed to supporting start-ups worldwide is a unique aspect of our endeavor. It's heartening to mention a group of highly qualified professionals and successful business diaspora appreciative of such initiative is willing to contribute intellectually through a formal mechanism from San Francisco Bay Area and Silicon Valley inclusive of all N. America and Europe.

Innovation Technology Park Business Incubator is to effectively bridge industry academia linkage resulting in socio-economic impact. Business Incubator is to help entrepreneurs developing their start-ups in a protective environment to implement best practices and to support them in finding early adopters. Incubation program to offer following services and are not limited to:

- 1. Incubator to facilitate Business services including company registrations, licenses, accounting, strategy advice, etc.
- 2. Financing services like brokering, equity credit guarantees, and seed capital.
- 3. Connectivity services like angel networks, mentor networks, Industry partners





Innovation Technology Park (ITP) is committed to the development of entrepreneurship and innovation ecosystems through collaboration and knowledge exchange with our partner Universities in Austria and China international partners. The incubator platform offers the broadest range of services related to technology, innovation, ecosystem development and business incubation.

Innovation Technology Park at PAF-IAST management team is appreciative of the fact that every ecosystem is unique and requires a unique combination of activities, services and resources to initiate the innovation cycle. To pledge mushroom proactive tangible activities, ensuring sustainability, several undertakings are planned in the incubator.

Incubator to Hold Shared space for the future entrepreneurs

Incubator - Shared Space

Oasis provides shared space for the Creative Minds to promote Enterpreneurial Activity

Oasis Layout – Ambiance

The Way to get Started is quit talking and start working









Existing Floor Space @ the Oasis

	Standard Rooms	Large Rooms	Hall	Lecture Theatre	Lobby	Store	Total
	21' x 30'	30' x 42'9"	41' x 41'	41' x 41'	41' x 41'	21' x 25'	
Basement	6	1	1	-	-	1	9
Ground Floor	8	-	-	-	1	-	9
First Floor	6	1	-	1	-	-	8
Second Floor	6	1	-	-	-	-	7
Third Floor	6	1	1	-	-	-	8
Fourth Floor	6	1	1	-	-	-	8
Fifth Floor	6	1	1	-	-	-	8
	44	6	4	1	1	1	57

Usable Space @ Technology Park

	Standard Rooms	Large Rooms	Hall	Lecture Theatre	Lobby	Store	Total
	21' x 30'	30' x 42'9"	41' x 41'	41' x 41'	41' x 41'	21' x 25'	
Basement	3,780	1,283	1,681	-	-	525	7,269
Ground Floor	5,040	-	-	-	1,681	-	6,721
First Floor	3,780	1,283	-	1,681	-	-	6,744
Second Floor	3,780	1,283	-	-	-	-	5,063
Third Floor	3,780	1,283	1,681	-	-	-	6,744
Fourth Floor	3,780	1,283	1,681	-	-	-	6,744
Fifth Floor	3,780	1,283	1,681	-	-	-	6,744
	27,720	7,695	6,724	1,681	1,681	525	46,026





Oasis to nurture entrepreneurial activities Start ups at the Technology Park

olumn1	Company	Category	Origin	Activity	Domain	Substitution	ZE - Status
			Local / Overseas		Engineering / Medical / Innovation / IT / Al	Import / Export / Economic Activity	
1	E-Mobility	EV	USA	Retrofit ICE to - EVs 2, 3 &4 Wheelers	Engineering	Import	Application under process at STZA
2	Augmented Reality	Virtual Reality	Australia	Augmented Reality, Animation	Gaming / IT / Tourism	Economic Activity \$\$\$	Application under process at STZA
3	Sig Pi	Health / Pharma	Indigenous	COVID-19 Testing Kit developed and is under test trials in the labs, research institutes	Pharma Testing Kits	Import	Potential submission to STZA pending
4	NewVative	Pharma	Indigenous	IoT based Cold Chain Monitoring Services for Pharma Industry & Hospitals	Tol	Import	Potential Submission to STZA pending
5	PAF-IAST, BMS Labs	Health	Indigenous	In-house Paternal Maternal DNA Testing Services	At Present Testing services being provided from Thailand	import	Potential Submission to STZA Pending
6	PAF-IAST, BMS Labs	Health	Indigenous	In-house tissue grafting by employing 3-D printer	Burn Skin Grafting, Cartiledge replacement	import	Potential Submission to STZA Pending
7	PAF-IAST, BMS Labs	Health	Indigenous	Skin Glow Face Mask	Cosmetics	Import	Potential Submission to STZA Pending
8	Electromagnetic Devices	Health / Pharma	Indigenous	Health Devices	Health / Pharma	Import	Potential Submission to STZA Pending
9	V-MOOV	Advance Manufacturing / Energy Storage	Indigenous	Local Production of Li Battery Packs	EV / Energy Storage	Import	Application under process at STZA
10	ATS - AI	Software Development House	USA	Software Development House	IT / AI	Import	Application under process at STZA
11	Edversity	Ed-Platform	Indigenous	On line Ed Training Platform	IT / AI	Capacity Building	

















Start ups at the Oasis

PsiMega2 Biotech:

www.psimega2.com

Psimega2 is an off shoot of institute's passion for science and biotechnology. The start-up is Pakistan's first biotech R&D company that has the determination to remove bottlenecks from commercialization of biotechnological products and to help establish a biotech ecosystem in Pakistan. It is being led by outstanding National and International researchers to take research from lab to the market. Our initial goal is to indigenize user-friendly high-end biotech benchtop kits such as DNA and RNA extraction kits and rapid disease diagnostic kits. The company also offers contract research organization services and works with National and International partners to indigenize and commercialize biotech products.

NewVative

www.newvative.com

PAF-IAST's startup NEWVATIVE is offering cold chain services to the Healthcare segment including Blood Banks, Hospitals, Pathology Labs and Pharma Warehouses to ensure stock safety and medicines efficacy.

NewVative is currently serving Shifa International Hospital, Chughtai Lab, Excel Lab, RMI and Citilab. We are currently engaging with Ministry of Health and National Institute of Health (NIH), Islamabad for single point active monitoring of large medicine warehouses and vaccine storages. NewVative will like to extend these services for Provincial Health Commissions too. Sufficient guidelines from DRAP exists but there are shortcomings in compliance. It is requested to engage Secretary health for a meeting time coming week for NEWVATIVE to do a 15 minutes presentation in his office to highlight the innovative solutions and its positive impact to society.

Edversity:

Edversity is an e-learning platform creating next-generation technopreneurs by equipping the youth with affordable, accessible, effective, and modern digital skills education. Edversity partners with the top 1% of instructors to create high-impact localized and up-to-date course content with engaging learning practices, student community, and one-on-one mentorship sessions. With our unique and modern learning management system we aim to unlock employment opportunities for the youth.



A startup owned and operated by PAF-IAST student Saad Siddiqui, a 20-year-old ambitious social entrepreneur working to create next generation technopreneurs through digital skills education with his multi-award winning edtech (Education Technology) startup, Edversity.



Saad participated and became the global champion at the Unicorns SCO event which took place in Uzbekistan. He was also the youngest entrepreneur present at the event. Saad was amongst the only 4 entrepreneurs representing Pakistan.

Edversity, Saad's ambitious startup was awarded \$10,000 in funding by the Unicorns SCO.



He has also been the recipient of numerous other such accolades, including the Global Student EntrepreneurAward2022. Saad is also the country winner of the 8th KazanOIC youthentrepreneurship event and the runner up for the Microsoft Imagine Cup organised by HEC Pakistan and Pakistan





Startup Cup organised by The Indus Entreprenueurs. Saad was also the winner of the IBA Startups Competiton in 2021. Saad has also been awarded the youngest Pakistani Entrepreneur award 2020. Saad ventured into ed-tech when he co-founded Edversity. Edversity is an ed-tech startup aimed to create technological education accessible to every part of Pakistan. Edversity aims to postively impact unemployement by harnessing the power of technology and making skilled learning cheaper and accessible to all. Edversity is currently incubated at the prestigious National Incubation Center, Islamabad.

Saad also served as the Country Head Pakistan for World Literacy Foundation and Country Representative of Coursera. Saad is the co-founder of Metrix, the first and the biggest technology summit happening in Khyber Pakhtunkhwa, supported by the government of KPK. With this summit, Saad aims to bring awareness related to technology to the youth of KPK which has been deprived of such opportunities. Companies like Microsoft and Meta are a part of this summit.

Saad's journey in social entrepreneurship continued with the nationally and internationally awarded Tayaba Organisation. He is a part of the core team that scaled Tayaba Organisation. Tayaba Organisation was lauded by the Ministry of Health Resources Pakistan, Forbes Asia and Office of the Prime Minister Boris Johnson to name a few. Saad has been working to ease water accessibility in the rural areas of Pakistan with Tayaba Organisation through a simple yet disruptive solution, the H2O wheel. Till date, Tayaba Organisation has impacted more than 6000+ households in Pakistan. He has also worked with the renowned NGO, 'Rizq'. An initiative to eradicate hunger from Pakistan by reducing food waste and distributing rations to deserving families. Saad served as a Direction for the Gujranwala division and his major responsibilities included marketing, team building and leading and execution of different projects in the division. Saad aims to promote skill-based learning and entrepreneurship in Pakistan. To fulfil this purpose, Saad serves as a Technology Advisor at Business Central, a community created to nurture and foster entrepreneurship in Pakistan. He is also the Founder of The Fachhochschule Youth Entrepreneurship Society. The first-of-its-kind entrepreneurship society at Pak Austria Fachhochschule Institute.









V-MOOV:

V-MOOV is another Startup at PAF-IAST registered with Security Exchange Commission of Pakistan, founded with a vison to provide cutting-edge lithium-ion energy solutions for electric mobility sector (EV) and help facilitate the clean energy transition with accelerated transition to Zero Emission Vehicles in the country. V MOOV strategically is moving ahead with vertical model from minning ore processing of raw material and on value addition providing full cycle solution to produce lithium batteries, battery manufacturing, battery pack and marketing.

Lithium-ion batteries are at the heart of Electric Vehicles (EVs) and the key technological enabler to achieve net-zero targets by allowing higher penetration of EVs, which could substantially reduce the transport emissions and improve urban environmental challenges.

Currently, lithium-ion market is still in its nascent phase in Pakistan. There are only a handful number of market players who produce lithium battery packs locally. Hence, Pakistan has to rely majorly on costly imports of Li-ion batteries from China, Taiwan, Japan and Korea. As a result, the cost of imported batteries is too high, which is unstainable for E-mobility businesses due to high import expenditure and high transactional costs and thus, generate lower traction for EV adoption. V-Moov recognizes this challenge and plans to address this market gap by setting up a highly optimized semi-automated assembly line at pre-industrial scale which is commercially feasible for domestic production of Li-Ion battery packs in Pakistan. V-Moov aims to capture this emerging market with our unique selling propositions, including highly competitive price, reliable, safe and high-performance batteries for 2W (e-motorbike) and 3W (e-rickshaws) electric vehicles.

One of the most competitive advantages of V-Moov is its potential co-location to operate inside the Special Technology Zone located at the Pak-Austria Fochhochschule Institute of Applied Science & Technology (PAF-IAST) that would provide us the institutional and legislative support to benefit from a range of fiscal and monetary incentives. As a result, V-Moov would enjoy exemptions from all customs duties and taxes on capital goods including materials, plant, machinery, hardware, equipment, and software imported into Pakistan.

Thus, V-Moov aims to reduce the domestic cost of battery production by localizing the supply chain in Pakistan. This would help accelerate the rapid penetration of zero emission vehicles and contribute positively to the changing climate, reduce fuel cost for consumers, decrease fuel import cost, and help resolve ongoing balance of payment crisis in the country.







Futuristic Special Technology Zone Infrastructural Development

Dr. Qamar MalikProfessor of Practice
Lead: Technology Park & STZ

Special Technology Zone (STZ)

Pak Austria Fachhochschule Institute of Applied Sciences and Technology (PAF-IAST) has a unique status amongst 236 HEI's in the country. The Special Technology Zone Authority (STZA) has awarded PAF-IAST a Special Technology Zone (STZ) status. Mandate of Special Technology Zone (STZ) is to promote technology-driven knowledge ecosystem encouraging small to medium size enterprises (SME) helping young entrepreneurs pursue innovation build on disruptive ideas promoting entrepreneurial ecosystem enthused through external drivers while creating job opportunities. Developed infrastructure at PAF-IAST other than new twin towers has constructed area space for corporate offices. PAF-IAST has procured additional 20 acres of land for the SMEs for their industrial activity. STZ ought to complement the holistic concept dovetailing the institute's educational infrastructure providing compatible intellectual platform and competitive growth of high-technology industry rolling out commercial activities.

PAF IAST has envisaged comprehensive plan for providing intellectual platform with indigenous solutions includes export-oriented technology solutions at the Innovation Technology Park. STZ at PAF-IAST holds strategic position, has accessibility to nearby dry port in Havellian, Industrial special economic zone (SEZ) in Hattar whereas PAF-IAST is just 3 kms off the CPEC Hazara motorway. Whereas technology clusters to be developed are within the vicinity, their high demands for skilled work force and knowledge infrastructure will be provided by PAF-IAST.

The Innovation Technology Park is within the premises of Special Technology Zone (STZ) is to foster innovative ideas. Both facilities, Technology Park and STZ ought to provide intellectual platform to organically cross-fertilize business needs while developing next generation technologies, providing;

- Business Process Outsourcing (BPO) Complexes
- R&D facilities
- Companies specializing in emerging and new technologies
- Centers of Excellence (Transportation, Artificial Intelligence, Food processing, Mining Mineral processing & Energy, Health & Medicine) will play vital role for tech-driven businesses and spin-offs,
- Faculty and Students will play critical role for concept to commercialization mandate through their start ups,

External drivers provided for zone enterprises at special technology zone should work as catalyst leading to competitive marketable products. Synergistic approach for Innovation Technology Park





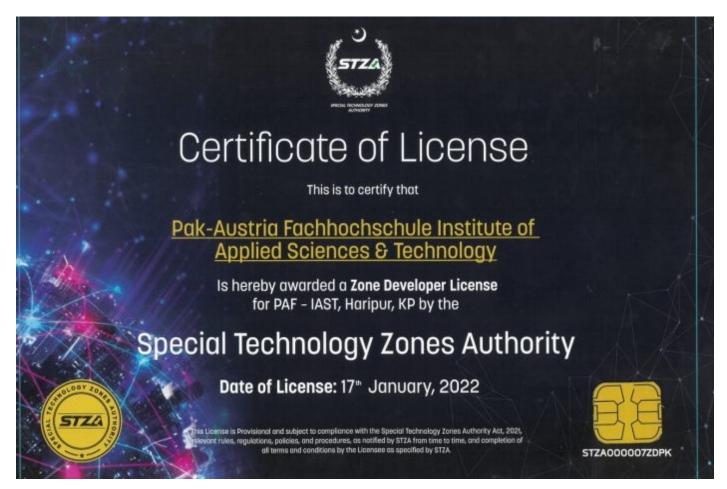
(ITP) and Special Technology Zone (STZ) are to promote business support for each stage from preliminary start-up to industries within economic zones and elsewhere establishing a support system for new industry creation, R&D and human resource training based on nascent technology and IT convergence technology(s). Operations and Management for Technology park and STZ have to opt self-sustainable models. The intent of all this undertaking is to build on Pakistan's existing industries integrating new technologies to discover and nurture next-generation products and processes in line with the 4th industrial revolution, and create jobs through support for start-ups. We at PAF-IAST dedicate ourselves to the economic development of the country.

It's envisioned synergistic arrangement at ITP and STZ will become an institution that puts customers first, an institution practicing ethical management, indigenizes services and producing innovative products to customers satisfaction at the same time is instrumental in capacity building, professional development, training and product certification leading towards competitiveness and self-reliance. Knowledge infrastructure will comprise of;

- I. Innovation Technology Park,
- II. Business Process Outsourcing (BPO) Complexes,
- III. R&D facilities,
- IV. Companies specializing in emerging and new technologies,
- V. PAF-IAST and its Training Centers, and Centers of Excellence for tech-driven businesses and startups engaged in providing IT & IT enabled Services (ITeS), engineering, advanced manufacturing, AI, Nanotechnology, Bio-tech, pharmaceutical and list goes on.

























German Ambassador & STZA executives visit PAF-IAST STZ

@ Technology Park / STZ H.E. German Ambassador interacted with founders and co-founders of start-ups, witnessed different entrepreneurial activities developing innovative products from concept to commercialization



















CEO CitiLab/Advanced Lab visit PAF-IAST STZ

Prof Dr.Rafiq Khanani, reputed pathologist, HIV AIDS expert, President Infection Control Society Pakistan visited PAF-IAST to explore potential partnership undertaking commercial global research activities and exploring pathology services and commercialization. He co-founded Dow Labs all across south of Pakistan, CEO CitiLab/Advanced Lab,Consultant to several clinical Labs in Pakistan including Hashmani Lab,Genose Lab,Excel Lab and several others.Under his supervision of molecular biology, approx 1.5 Million Covid PCR Tests performed in Pakistan and several researches on Covid with China.













Oasis for Creative Minds

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