



SPCAI Insight

ISSUE - 4 (July - September 2021)

Newsletter











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Editorial Board of the SPCAI Quarterly Newsletter

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SPCAI has Organized the First National Artificial Intelligence Forum 2021

On September 2, 2021, the Sino-Pak Center for Artificial Intelligence Center (SPCAI) organized the National Artificial Intelligence Forum (NAIF) 2021 under the auspices of the Ministry of Information Technology and Telecommunication (MoITT), Government of Pakistan, and Pak-Austria Fachhochschule: Institute of Applied Sciences & Technology (PAF-IAST) at PAF-IAST, Haripur.

NAIF was the first of its kind convention in the history of Pakistan, intended to gather policymakers, regulators, practitioners, experts, innovators, end-users, investor groups, researchers, educators, entrepreneurs, interested public, and representatives from various industries from Pakistan and abroad under one roof to initiate a grand National discourse about the importance and effectiveness of Al in socio-economic settings. The forum was an effort to develop an awareness of the role and impact of Al in Pakistani society and industry and industrial processes, social fabric, and economic growth.



The forum was open to the public, and approximately 200 professionals from different walks of life were in attendance. SPCAI Managing Director, Dr. Atif Mashkoor, Rector PAF-IAST, Dr. Muhammad Mujahid, and Chairman Prime Minister Task Force on Science and Technology, Prof. Dr. Atta Ur Rehman, were on hand to open the National Artificial Intelligence Forum 2021. For the analysis of all aspects of Artificial Intelligence applications, the NAIF forum was divided into six sections i.e.

- 5. 1. Introductory Talks 3. Penal Discussion International Experts Talks 2.
 - Academic Talks Industrial Talks 6. National AI Policy Discussion 4



While welcoming the participants, Dr. Atif Mashkoor, Managing Director SPCAI, shared the background, objectives, and importance of the AI forum. The forum was inaugurated by Prof. Dr. Atta Ur Rehman, Chairman Prime Minister Task Force on Science and Technology. He highlighted the importance of artificial intelligence and said that our youth should be equipped with modern knowledge and required skills to lead the country as an innovation-driven economy. Chief guest, Dr. Muhammad Mujahid, Rector PAF-IAST, emphasized skills orientation, focused and relevant research towards solving the problems, and effective academia-industry linkages. He also congratulated the organizers on the successful event.







Lab2Market Exhibition as a Part of National Artificial Intelligence Forum 2021



SPCAI in collaboration with PAF-IAST, organized a "Lab2Market" event as a part of the National Artificial Intelligence Forum (NAIF). The event's primary purpose was to invite participants from Pakistani universities to showcase their AI-based applied research ideas in the form of projects, prototypes. The registration phase for the event started on June 15, 2021. A total of 235 projects were registered for this event in the first phase, where 66 universities from 19 different cities of Pakistan participated during the first phase. After evaluation by a team of experts, 60 projects were shortlisted for the second phase, i.e., Three-Minute Pitch (3MP). The 3MP round was conducted online on August 23, 2021, and after a rigorous evaluation of each project, 28 projects were shortlisted for showcasing at the National Artificial Intelligence Forum 2021.

Region-wise Participation of Students/Universities in the Lab2Market



The experts at the NAIF evaluated the displayed projects in detail, and the top three projects were selected for the award of prizes. The first cash prize of rupees hundred thousand was won by the University of Agriculture Faisalabad against the project titled 'CNC Smart Farming Bot'. The second cash prize worth rupees seventy-five thousand was won by Mehran University of Engineering and Technology, Jamshoro, against the project titled 'Design and Progression Analysis of Neuro Rehabilitation System using Machine Learning'. While the third cash prize of rupees fifty thousand was won by the National University of Modern Language Islamabad against the project titled 'Talking Glove for Mute People'. The participating students appreciated the efforts and arrangements made by the organizers. They also desired that such useful events and competitions should be organized on a regular basis to promote Al culture in Pakistan.









Print Media Coverage of National Artificial Intelligence Forum 2021

National Artificial Intelligence Forum (NAIF) 2021 was covered by prominent national newspapers. We thank our media patrons for their support towards an Al-enabled future. The robust roadmap built through NAIF will enable all stakeholders to contribute towards a sustainable AI Ecosystem in Pakistan.





زرگاری نیز تا بیش با با نے بلیل میرون پر میر تاریخ میر تاریخ میر تاریخ میر تاریخ عنوم به دو تصویری با در اساع باک میتر و با از تلییس انگل جنس، باک عز یا قام این میتر زوند انتابوی ک افتراک سے مصر بلاف باسا یہ ساتھا کہ مالوں کہ با -N81 21 VVrank) ⁰ ئەت ئەت يە يەرى ¹ نے تیسری پوزیکن حاصل کی رزمائش کا بنیادی مقصد مصوف ایا زی ال الد الم المعر جامع ك في الى الد هواك المعل الوالى الله مع الم عل عد كال 235) 12. 1.25 6 あっちょいのののでにうしんのといいに いちのとんというんんとい d. T. M بت کے مصوب کو قلل بوزیکن اور ذیک او کورا ہے کا اضام دیا، میران بو نیوش آف الی تو تک اور الیکاوری بیا ملورد کے مصوب میں ارتک کے اربیک دکی تلیفیلی کو دسری پاوڈیلی اور 5000 اخام دیا ای طرح تلک いこんちょうというのんとういったい へんかんしんしいろうんと - King with a 50000 and 19 5 a

MoU Signing Ceremony (SPCAI and LENOVO Global Technology HK Limited)

A memorandum of understanding (MoU) has been signed on September 9, 2021, between the Sino-Pak Center for Artificial Intelligence (SPCAI), Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology (PAF-IAST), and Lenovo Global Technology HK Limited based on the mutual understanding. Under this agreement, Lenovo and SPCAI agreed to strengthen the active participation and exploitation of education and research sectors' opportunities to develop products, technologies, and solutions, particularly in the area of high-performance computing.





Lenovo also agreed to support SPCAI in the global outreach and networking.





MoU Signing Ceremony (SPCAI and National Engineering & Scientific Commission-NESCOM)

A memorandum of understanding (MoU) has been signed on September 7, 2021 between the Sino-Pak Center for Artificial Intelligence (SPCAI), Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology (PAF-IAST), and National Engineering & Scientific Commission (NESCOM) based on the mutual understanding. Both sides agreed to develop the following areas in cooperation:

- 1. Intelligent Field Robotics
- 2. Smart City and Urban Planning
- 3. Intelligent Systems Design (Intelligent Industrial and Production Technologies)
- 4. Intelligent Biomedical Applications (Imaging, Assistive Bionics, Diagnostics, etc.)
- 5. Internet of Things
- 6. Deep Learning
- 7. Intelligent and optimization applications in the energy domain
- 8. Intelligent pattern recognition-based security application
- 9. Neuro-Computation

Pak-Austria Fachhochschule Institute of Applied Sciences and Technology Skilling Pakistan



Both SPCAI and NESCOM agreed to share the field expertise and jointly work on writing project proposals. These proposals shall be either funded by NESCOM or SPCAI based on mutual understanding. SPCAI shall provide the trained human resource and expertise in the projects as desired by NESCOM. NESCOM agreed to provide support to research students in the future. Pak-Austria Fachhochschule Institute of Applied Sciences and Technology Shilling Pathistan







Managing Director, SPCAI Calls on Prof. Dr. Atta-ur-Rehman

Prof. Dr. Atta-ur-Rehman, Chairman Prime Minister Task-force on Science and Technology, invited Dr. Atif Mashkoor, MD-SPCAI, and Foreign Faculty of PAF-IAST on September 7, 2021, to congratulate him and SPCAI Team for successfully organizing National Artificial Intelligence Forum (NAIF) 2021 at PAF-IAST Campus, Haripur.

Prof. Dr. Atta-ur-Rehman lauded the SPCAI for leading the efforts to propel Artificial Intelligence (AI) into the mainstream of Pakistan's socio-economic landscape. On this occasion, the two leaders discussed areas of mutual interests, including technological cooperation between Pakistan and Austria. They agreed to create a working body comprising academicians and industrialists from Pakistan and Austria to strengthen further the regime of technological and cultural exchanges between the two countries under the auspices of SPCAI.



SPCAI- International Advisory Board (IAB) Meeting

The first meeting of International Advisory Board (IAB) of SPCAI took place on 1st September 2021 in Pak-Austria Fachhochschule: Institute of Applied Sciences & Technology, Haripur. The meeting was attended by the following officials:

- Dr. Mohammad Mujahid, Rector, Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology
- Dr. Alexander Egyed Johannes Kepler Universität Linz (JKU), Austria
- Dr. Bernhard Moser Software Competence Center Hagenberg (SCCH), Austria
- Prof. A Min Tjoa TU Wien, Austria
- Dr. Shoab A Khan CASE/CARE, Pakistan
- Dr. Yasar Ayaz Chairman / Central Project Director of National Centre of Artificial Intelligence (NCAI), NUST, Pakistan
- Mr. Wahaj Siraj CEO, Nayatel, Pakistan
- Dr. Atif Mashkoor, Managing Director (Acting), Sino-Pak Center for Artificial Intelligence

The IAB members were updated about the progress and achievements of SPCAI. They discussed every agenda item in detail and provided their recommendations for the improvement of SPCAI processes.





Managing Director, SPCAI invited by the Rotary Club Rawalpindi in their Guest Speaker's Meeting

Guest Speaker Meeting of Rotary Club of Rawalpindi was held on Monday, August 30, 2021, at Rawalpindi Gymkhana Club. Dr. Atif Mashkoor (Managing Director-SPCAI) was the guest speaker of the occasion. The meeting was presided over by Mr. Munir Ahmed Tanoli (President Rotary Club of Rawalpindi). After the formal introduction, Dr. Atif Mashkoor deliberated upon the future scope of Artificial Intelligence in various industries and emphasized the role of Al in the overall socio-economic setting of Pakistan. He further spoke on the significance of Al and advised the youth to embrace Al as it is the future. He also answered many questions asked by participants. After the president's formal vote of thanks, a souvenir was also presented to Dr. Atif Mashkoor.



Syed Ahmad (CEO, DPL) Visits SPCAI & PAF-IAST

Syed Ahmad– CEO – DPL visited PAF-IAST and SPCAI on August 27, 2021 and discussed the potential areas of collaboration for research and production development purposes and how engagement with the industries can be increased. The participants also discussed how SPCAI, PAF-IAST can mark their footprint in Pakistan's industrial sector by using the Pakistan Software House Association platform. Dr. Mohammad Mujahid (Rector, PAF-IAST) thanked Syed Ahmad for the time he spared for this visit and ensured continuous interaction in the future.







Pro-Rector National University of Science and Technology (NUST) Visits PAF-IAST and SPCAI



Dr. Osman Hasan– Pro-Rector (Academics) – National University of Sciences and Technology (NUST) visited PAF-IAST and SPCAI on August 24, 2021 and discussed the potential areas of collaboration for research and production development purposes. He agreed to collaborate with PAF-IAST and SPCAI in the joint projects and initiatives relevant to mutual areas of interest.

A team from SPCAI Visits Capital Smart City

A team from Sino-Pak Center for Artificial Intelligence (SPCAI), PAF-IAST, visited Capital Smart City on August 23, 2021, and met with Mr. Muhammad Aslam Malik (Group COO). The points discussed were as follows:

- 1. Dr. Atif Mashkoor- Managing Director SPCAI presented the center, activities, projects, and National Artificial Intelligence Forum 2021.
- 2. Potential areas of collaboration for research and product development purposes were discussed.
- 3. An umbrella MoU may be signed between SPCAI, PAF-IAST, and Capital Smart City for various ventures and activities which could be of interest and/ or relevance to SPCAI.
- 4. SPCAI and Capital Smart City will join hands at National Artificial Intelligence Forum 2021











A team from SPCAI Visits Pakistan Software Export Board (PSEB)

A team from SPCAI, PAF-IAST, Visited Pakistan Software Export Board (PSEB) on August 23, 2021, met Mr. Osman Nasir – Managing Director, and Mr. Syed.

- 1. Dr. Atif Mashkoor Managing Director SPCAI, PAF-IAST presented the center, its activities, projects, and National Artificial Intelligence Forum 2021.
- 2. An umbrella MoU may be signed between SPCAI, PAF-IAST, and PSEB for various ventures and activities which could be of interest and/ or relevance to SPCAI, PAF-IAST.
- 3. SPCAI, PAF-IAST, and PSEB will join hands at National Artificial Intelligence Forum 2021.



A team from PAF-IAST and SPCAI Visits Center for Advanced Research in Engineering (CARE)

A team from PAF-IAST and SPCAI Visited CARE on August 20, 2021, and met Professor Dr. Shoab Ahmed Khan – Chancellor – C@SE and CEO – Center for Advanced Research in Engineering. The points discussed were as follows:

- 1. CARE team presented their projects and gave SPCAI a detailed briefing on their IoT projects.
- 2. MD SPCAI presented the center, its activities, and IoT projects.
- 3. Both teams explored common areas of interest in IoT and were willing to contribute to joint projects.
- 4. Dr. Shoaib Khan provided guidelines to develop a culture to promote product-based research.
- 5. Both teams agreed to write joint research proposals and explore national and international funding opportunities

on advanced applications of IoT and AI such as road safety, vehicular ad hoc networks, healthcare, actuators to control environmental conditions, and predictive maintenance.

- 6. CARE has shown interest in the technology park at PAF-IAST and exploring other possible commercialization modes of their products through SPCAI.
- 7. SPCAI and CARE will join hands at NAIF, and CARE is also interested in presenting its products at NAIF 2021.







Management of PAF-IAST and SPCAI Visits Khyber Pakhtunkhwa Information Technology Board (KPITB)

Dr. Atif Maskoor (Managing Director – SPCAI) and Mr. Anwar Amjad (Advisor IT – PAF-IAST) visited KPITB on August 16, 2021. Following points were discussed in the meeting chaired by Dr. Sahibzada Ali Mahmud (Managing Director- KPITB):

- 1. The clustering of Digital City, NRTC, PAF-IAST ITP, and Kahal Dam into one STZ is principally agreed upon and supported by MD KPITB. However, he will discuss the concept and seek the consent of Minister Mr. Atif Khan and the Secretary.
- 2. MD KPITB inquired about the acquisition status of Kahal Dam and the plans for construction there since there is some condition of STZA.
- 3. An umbrella MoU may be signed between PAF-IAST and KPITB for various ventures and activities which could be of interest and/ or relevance to PAF-IAST.
- 4. A tripartite MoU may be signed between KPITB, PSEB, and PAF-IAST towards setting up a facility operated by PSEB at the PAF-IAST Innovation Technology Park.
- 5. PAF-IAST may also be considered for providing Trainers/Training under the projects being approved by Government for merged areas.

- 6. MD KPITB will also be referring PAF-IAST's call for Incubation Service Provider to some potential companies doing good in this domain.
- MD KPITB recommended considering and focusing on Quantum Computing on similar grounds as AI and Nanotechnology Centers are being given. This area could turn out to be the next Industrial revolution after Industry4.0



Dr. Shoab Khan (Chancellor - C@SE and CEO - Center of Advanced Research in Engineering - CARE visits PAF-IAST and SPCAI

Professor Dr. Shoab Ahmed Khan – Chancellor – C@SE and CEO – Center of Advanced Research in Engineering (CARE) visited PAF-IAST and SPCAI on August 13, 2021. Following agenda points were discussed in the meeting chaired by Dr. Mohammad Mujahid – Rector-PAF-IAST :

- 1. To cooperate within IoT related research in product development
- 2. To further intensify Al-related ties between the two institutions
- 3. To join hands-on consensus development related to AI at the national level







Team Sybrid visits SPCAI, PAF-IAST

A team from Sybrid Pvt Ltd – A Lakson Group Company visited PAF-IAST and SPCAI on August 11, 2021 and discussed the potential areas of collaboration for research and product development purposes. Sybrid agreed to collaborate with the PAF-IAST and SPCAI in the joint projects and initiatives relevant to mutual areas of interest, including natural language processing, smart agriculture, and cybersecurity.



Team Forbmax visits SPCAI, PAF-IAST

A team from Forbmax Solutions visited SPCAI on August 11, 2021, and discussed the various aspects of high-performance computing (HPC), including tools and techniques for the deployment of open source applications and services on such platforms and different deployment standards. Forbmax team also shared their experience of providing HPC-related services in Pakistan and other countries. Some other key points were also discussed as a part of the meeting agenda, which include:





- 1. Current AI and HPC telemetry and dynamics for PAF-IAST
- 2. Discussion on current AI and HPC market in Pakistan by industry verticals
- 3. Go-to-Market strategy for HPC, including a marketing plan
- 4. Cloud readiness for HPC applications

SPCAI faculty exchanged healthy discussions with the Forbmax team regarding the HPC and its significance in AI-related applications. Forbmax agreed to provide HPC-related consultancy services and training to the SPCAI team. The meeting ended by emphasizing the need to establish a formal agreement between SPCAI and Forbmax for future collaborations.





OPEN DAY ADMISSIONS 2021

PAF-IAST organized the open day event on 3-4 August 2021. The prospective applicants of BS and MS degree programs, parents, and guests visited the campus. They interacted with the faculty members and university students to discuss career prospects. SPCAI, as a part of PAF-IAST, also participated in the event and played its role in the open house activities. The SPCAI faculty members interacted wholeheartedly with the visitors and answered their queries regarding the center, institute, and admission procedures. There were multiple interaction sessions with the walk-in students and visitors on both days of the open house event, in which the faculty gave briefings on the following key points:



- 1. Importance of AI in the 21st century and why is it necessary to equip our youth with AI-related skills set
- SPCAI Master's degree program in AI (including admission schedule, procedure, and requirements, fee structure, program details, and scholarship opportunities)
- 3. SPCAI faculty profiles, departments, laboratories and equipment, ongoing projects, research collaborations, and future areas of interest



- 4. Job opportunities and prospects after pursuing a degree program in Al
- 5. Events being organized by the SPCAI (including Lab2Market event and National Artificial Intelligence Forum (NAIF) to be held on September 2, 2021) and their importance for the academia and industry

A Delegation from Medical Imaging and Diagnostic MID Laboratory visits SPCAI, PAF-IAST

A team under the lead of Ms. Maria Nazir from Medical Imaging and Diagnostic Laboratory (MID), NCAI, COMSATS, Islamabad visited SPCAI, PAF-IAST on Friday, July 9, 2021. The purpose of this visit was to explore areas of common interest to collaborate. Following are some mutual points discussed in the meeting, which can be beneficial for both SPCAI and MID lab in the long term.

- 1. Joint training programs for both specialized and general trainees
- 2. Joint local and international research proposals, Including Internal call for proposals and HEC
- MID Lab offered SPCAI to become a part of their startup of AI Care Pvt Ltd
- 4. SPCAI can explore areas where MID lab can benefit from services, including computing requirements and software development.
- 5. Exploring mutually decided areas like precision agriculture and industry automation









A Delegation from SPCAI Visits Jang Media Group

A delegation from SPCAI visited the Jang Media group on July 17, 2021, to discuss sponsorship opportunities at National Artificial Intelligence Forum (NAIF) 2021. During this visit, Mr. Babar Khan (Marketing Manager-SPCAI) briefed Jang Media Group about the National Artificial Intelligence Forum 2021, its objectives, importance, and sponsorship opportunities one can avail of by funding the NAIF 2021. Ms. Madiha Aslam (Program Manager-SPCAI) further added the event's uniqueness and requested Jang Media Group for their complete support by covering the event and arranging sponsorships for the events. In response to the request made by the SPCAI, Mr. Mohsin Rashid (Associate Director Marketing, Jang Media Group) extended his full support for the NAIF 2021. He also made commitments to arrange meetings of the SPCAI team with certain corporations, which will help SPCAI secure sponsorship for the NAIF 2021.







Meeting with Chairman Pakistan Science Foundation (PSF)



On July 7, 2021, a delegation from SPCAI comprising Ms. Madiha Aslam (Program Manager), Mr. Babar Khan (Marketing Manager), and Mr. Murtaza Noor met Prof. Dr. Shahid Mahmood Baig (Chairman, PSF) at his office in Islamabad. The purpose of this meeting was to brief the Chairman about the upcoming event 'National Artificial intelligence Forum (NAIF) 2021' to be organized by SPCAI, PAF-IAST, and its objectives. During the meeting, a formal application for funding NAIF 2021 was also submitted to the Chairman. Prof. Dr. Shahid Baig extended his full support towards the organizing of NAIF 2021 at SPCAI, PAF-IAST. In the end, Mr. Babar Khan also presented SPCAI's souvenirs to the Chairman, PSF.







The Rising Culture of Entrepreneurship by Dr. Atif Mashkoor



For the last two decades, I've resided in various European countries. A common observation in all those countries is a lot of elderly people and only a few children. In fact, only less than one-third of Europe's population is under the age of 30. However, in Pakistan, this situation is quite the opposite: around 64% Pakistani population is under the age of 30, and, according to the United Nations Development Program (UNDP), this situation will continue to increase until at least 2050. Thus, Pakistan is potentially sitting on a gold mine: its vibrant and dynamic youth.

When I say our youth is a potential gold mine, I've solid arguments to back this bold claim. For instance, let's just consider only the Pakistani startup scene. Although Pakistan has less startup funding available per capita (approx. 0.1 cents) than comparable countries such as Nigeria (0.2 cents) and India (4.0 USD), the Pakistani startup culture is still thriving. For example, in 2017, only nine Pakistani startups received Venture Capital (VC) funding compared with 34 in Nigeria and 790 in India. In 2019, this number increased to 32, and in 2020, it grew to 41. Moreover, in 2020, Pakistani startups raised around 65 million USD, which is significantly higher than in 2019, when startups raised 47.5 million USD.

It will be unfair if we don't appreciate the governmental initiatives in this regard, e.g., the provision of IT infrastructure, tax exemptions, and the establishment of national incubation centers. In addition, the recently launched Kamyab Jawan Program – a youth entrepreneurship loan scheme – is also providing the youth with opportunities to utilize their entrepreneurial potential to the fullest through subsidized business loans. Meanwhile, the ease of doing business has also been improved in Pakistan, thanks to Government's business-friendly policies.

We should also applaud the role of universities and academia in this regard. As of late, many universities are promoting entrepreneurial culture among their students. A few private sector universities are even exposing their students to entrepreneurship courses and incubators in earlier semesters. The public sector universities are also catching up quickly. For example, Pak-Austria Fachhochschule – Institute of Applied Science and Technology (PAF-IAST): the first Pakistani university built on collaboration between Pakistan, Austria, and China, has recently initiated its incubation program. Through a generous VC fund of 10 million USD, PAF-IAST provides a platform to support its faculty and students in transforming their ideas into viable products.







This is analogous to developed courtiers where academia plays an instrumental role in cultivating startup talent. Many universities provide an ecosystem, which nurtures brilliant ideas right from the inception phase. They provide the seed money for the concept and help the idea grow into a product. For instance, through the incubation program of the University of Oxford, successful startups have already raised more than 40 million USD. PAF-IAST is aspiring to create a similar success story in the context of Pakistan.

Apart from universities, governmental initiatives like Durshal or the National Incubation Center (NIC) are also quite active and already supporting excellent ideas from students, e.g., NIC has already helped incubated more than 200 startups.







While it's outstanding to see so many initiatives taking place, this is not sufficient. Just creating new startups and pouring in seed money is not enough. Equally important is their sustainability and longevity. As startups grow and scale, they also need more human capital with technical skills to expand the services initially offered by the founding members.

Basic technical skills (for example, web designing, coding, and search engine optimization) can be acquired through short-term intensive training and boot camps: typically three to six months intensive and applied training programs. This is the point where our vocational institutes could help. According to recent reports, more than 300,000 students are enrolled in technical training institutes in Pakistan every year. Apart from brushing their skills for blue-collar jobs, the focus should also be on polishing their digital skills. We also need to focus on their entrepreneurial skills simultaneously.

An excellent example to follow here is the World Bank's boot camp programs to upskill the people of developing countries for future technological projects. The initiative has been piloted in three countries: Colombia, Kenya, and Lebanon. Either the Government of Pakistan persuade the World Bank to initiate a similar program in our country or conceptualize its own; a similar model is much needed in Pakistan for the sustainability of the entrepreneurial ecosystem and the further technical development of our youth.

The Sino-Pak Center for Artificial Intelligence (SPCAI) – an application-oriented research and development facility at PAF-IAST funded by the Ministry of IT and Telecommunication – is also skilling youth in artificial intelligence, the much-needed skill for the future of our country. The SPCAI plans to hold a mega National AI Forum (NAIF) in Pakistan on September 02, 2021, gathering policymakers, regulators, practitioners, experts, innovators, end-users, investor groups, researchers, educators, entrepreneurs, interested public, and representatives from industries from Pakistan and abroad under one roof. The NAIF provides a perfect opportunity to experience first-hand how the startup culture is thriving in Pakistan and the role of youth in it.

The writer is the managing director of SPCAI and a faculty member at Johannes Kepler University Linz, Austria. He can be reached at https://twitter.com/atif_mashkoor.









Industrial Partners



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