



Postdoctoral Innovation Fellowship Programme

Directorate General of Science and Technology,
Government of Khyber Pakhtunkhwa

Guidance Brief

Version 1.2

What is a Postdoctoral Innovation Fellowship?

The Postdoctoral Innovation Fellowship programme offers highly competitive, one-year contracts to freshly graduated PhD scholars from top schools in the country and abroad, with a clear objective of undertaking R&D.

Fellows are required to identify at least 1 novel scientific development, discovery, invention (prototype) or innovation (solution or products), they will be aiming to achieve/develop during their term.

The fellowship allows successful candidates to join research groups of their choice, ideally in consortia funded in the 8+3 strategic thrust areas, and covers their salaries and initial research expenses, giving them a soft-landing pad to jumpstart their careers in the world of research and development, either in academia or industry, in Khyber Pakhtunkhwa.

The component will help begin to establish a critical mass of infrastructure and researchers in the 8+3 priority areas in KP, to help develop a competitive economic advantage.

Application Form: https://bit.ly/PIF_form

Deadline: May 29, 2022

Supervisor IRTC Registration Form: https://bit.ly/IRTC_form

8+3 strategic areas

The Directorate General has identified 8+3 strategic areas which are considered the strategic focus. These include 8 application fields based on 8 key natural resources that Khyber Pakhtunkhwa has been endowed with. Science and technology R&D interventions are encouraged that can help in value addition and improvement at different levels of the value chains of these natural resources in our economy. These 8 thematic areas include:

1. Gemstones
2. Bees and Honey
3. Fruits and Vegetables
4. Fisheries
5. Herbs and Medicinal Plants
6. Micro Hydro Plants
7. Archeology
8. Urban Environment

These strategic areas also include 3 emerging areas that can provide a competitive advantage to the economy of Khyber Pakhtunkhwa in the near future. These 'moonshot' areas build own pockets of excellence in KP, and helps us focus and prioritise the investment offer resources into three priority areas that can put KP on the regional map in the next 10 years. These areas include:

1. Advanced Materials
2. Biomedicine
3. Space Sciences

What is IRTC?

The Interdisciplinary Research Training Centre brings together some of the best R&D leaders from around the province and enables them to host and supervise undergraduate, masters and postdoctoral researchers under various programmes of the Directorate General of Science and Technology. These high-flying candidates will pursue a joint inter-disciplinary Masters with more than one supervisor from different institutions. The one year applies to the final/research year of their degree. The IRTC is hosted at the Directorate General of Science and Technology.

Applications will be invited from Principal Investigators/Group Leaders, who must have obtained a PhD from an HEC-accredited university and be leading a research group or unit in academia or a research institution (minimum equivalence to an Assistant Professor) or in a startup or the industry (minimum as Head of distinct project, department or division), in Khyber Pakhtunkhwa to join the IRTC as Approved Supervisors, using a prescribed template.

Rationale of the Component

- Develop products based on individual expertise in the eight thematic areas and three priority areas as identified by the Directorate General.
- Develop a critical mass of expert talent in KP, in the eight thematic areas and three priority areas as identified by the Directorate General.
- Stop and reverse the brain drain of highly-skilled technical individuals, holding specialised PhDs, and retaining them by helping them establish a career in science and technology in KP.
- Enable fresh PhD holders get a foot on the ground, embark on careers and set up their research groups in academia and industry in Khyber Pakhtunkhwa.
- Help connect the Fellows with peers and mentors including leaders in science, and build a professional support network for individuals of that cadre.
- With consistency in the fellowship in the coming years, KP will be able to attract talent from outside into KP, which will be a massive impetus to our economy over time.

- Through its prestige, make R&D in science and technology and attractive career path for young students.

Mechanism of Implementation

The pilot programme will run in 2 cycles of one year each, starting in Year 1 and Year 2. Each cycle will have the following steps:

- Advertise a Call for Applications for the Fellowship in national dailies, official websites, letters to universities and on social media, with a 30 days deadline from date of advertisement. This will require their CV as per prescribed format and a 500-words Personal Research Statement.
- The Technical Evaluation Committee shortlists candidates and invites them for detailed interviews within 30 days of the close of applications. Applicants will be required to submit a **Personal Research Plan** and a **Community Engagement and Outreach Plan** and that will be undertaken to achieve the goal of the fellowship in the identified host institution.
- A total of 12 postdoctoral fellows are selected for the prestigious one-year fellowship and the results are announced within 2 weeks of conducting the last interviews.

Criteria for Candidates:

- A high-flying scholar with a doctorate degree (minimum eligibility) in any discipline of science, technology, engineering and mathematics, from leading HEC-recognised universities in the country or abroad.
- Non-KP candidates may also apply, provided their PI and Host Institution is based in Khyber Pakhtunkhwa.
- A personal research statement that includes the candidate's reasons and plans of undertaking research in KP and in their specific area of specialisation.
- A Letter of Support from at least one institution in Khyber Pakhtunkhwa (a university, startup or a larger company from the industry) that is involved in research and development, that:
 - Clearly lays out commitment to host the candidate if s/he is awarded the Fellowship
 - Approves of the research proposal (including milestones and deliverables) that is to be undertaken with the support of the Fellowship
 - Candidates must be KP domicile holder. A personal research statement that includes the candidates plans of starting a research group in Khyber Pakhtunkhwa and reasons which drives her/him to do so.
- A well thought out Personal Research Plan that has clear milestones with a goal to develop at least one novel scientific development, discovery,

invention (prototype) or innovation (solution or products) identified as a deliverable.

- A personal Community Engagement and Outreach Plan, that may include a commitment to do any two sets of activities during the fellowship year, from the following:
 - At least 2 public lectures at a community space (such as co-working spaces, incubator spaces, coffee shops and others, or virtually)
 - At least 3 lectures in a combination of three separate public-sector or private-sector schools
 - Participation in at least 1 STEM Fair, Festival or Mela that is organised in your city or district.
 - At least 2 articles around your research in a local newspaper in any language
 - A policy roundtable around your subject area for both public and private sector stakeholders
 - A workshop for patients/study participants around management and awareness of a particular disease.

Criteria for PIs:

- The PI must be leading a research group or unit in academia or a research institution (minimum equivalence to an Assistant Professor) or in a startup or the industry (minimum as Head of distinct project, department or division).
- The PI must be willing to commit to supervise and mentor the candidate and offer him office space and amenities and laboratory space and amenities that are needed to accomplish the candidate's research goals.
- Help fine-tune and provide realistic feedback and approve of the personal research plan of the candidate along with its milestones and deliverables.
- Support the candidate with her/his personal community engagement and outreach plan.

Costs Covered by the Fellowship

Each Fellowship will cost PKR 2 million. This includes 12 months of salaries for the Fellow at the rate of PKR 130,000 per month. Along with a research starter fund of PKR 400,000 under the supervision of the PI, and overheads of PKR 40,000 for the host institution.

Monitoring of the Component:

The Fellow will be submitting brief quarterly progress reports on a prescribed template. The project staff may have in person check-ins with each Fellow in case of any concern to ensure a smooth journey towards the goals of their research plan. The Fellowship will end with a Final Report submitted by the Fellow with the endorsement of the PI and Host Institution on a prescribed template.

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