1. Advertisement

Post Title: Research Fellow in Economics of Innovation and the Future of Work
School/department: University of Sussex Business School, Science Policy Research Unit
Hours: full time (or a minimum 0.8 FTE)
Requests for <u>flexible working</u> options will be considered (subject to business need).
Contract: fixed term full time for 18 months, with possibility of extension
Reference: 7337
Salary: starting at £34,304 to £40,927 per annum, pro rata if part time
Placed on: 30 November 2021
Closing date: 17 January 2022   Applications must be received by midnight of the closing date.
Expected Interview date: TBC
Expected start date: February 2022 or as soon as possible

The [Science Policy Research Unit](#) at the [University of Sussex Business School](#), is seeking to appoint a Research Fellow to work on an EU funded Horizon2020 project on Pathways to Inclusive Labour markets ([PILLARS](#)). The PILLARS project studies how changes in emerging automation technologies, their adoption along GVCs, and industrial transformations, affect the future of work, including through the reconfiguration of the demand for skills.

The Research Fellow will:
- Combine unique granular data on emerging technologies and online job vacancies for all European countries and the UK;
- Estimate the impact of automation on the future of work, through the exposure of industries and occupations to emerging automation technologies (industry 4.0) in European and UK regions;
- Co-author publications in top field journals;
- Supervise Research Assistants helping with data cleaning;
- Collaborate with a team of top innovation scholars, economists, and job market data scientists in UNU-MERIT, Ifo, Paris School of Economics, Utrecht University, University of Milan and Catholic University of Eichstätt-Ingolstadt

Essential criteria for the position include:
- A PhD (or close to completion) in Economics, Economics of Innovation, Labour economics, Data Science, Geography or related quantitative social sciences
- Excellent programming skills with data analysis packages (SQL, Python, R)
- Experience with the analysis of STI data (patents and publications)
- Good knowledge of the literature on employment and technological change
- Ability to explore new unstructured data and methods, and willingness to work in an interdisciplinary, collaborative, and stimulating team and project.

Please contact Prof. Maria Savona (M.Savona@sussex.ac.uk) or Dr. Tommaso Ciarli (ciarli@merit.unu.edu) for informal enquiries.

For full details and how to apply see our [vacancies page](#)

The University of Sussex values the diversity of its staff and students and we welcome applicants from all backgrounds.

2.   The School and SPRU

University of Sussex Business School

The University of Sussex Business School is a unique research-focused interdisciplinary school, which takes a strong policy-directed view on business practices while also developing the underlying core disciplines. It includes the Department of Accounting and Finance, the Department of Strategy and Marketing, the Department of Management, the Department of Economics and the Science Policy Research Unit (SPRU).

As a dynamic, research-orientated and interdisciplinary School, we produce cutting-edge research that addresses real-world issues, pressing global policy agendas and business practices, whilst also being committed to developing the underlying core disciplines.

The School is committed to the University's vision to understand and help address the grand issues of our time, by challenging conventional thinking and discourse, being creative and open in our approach and innovative in our methods in order to produce world-class research with impact.

Science Policy Research Unit (SPRU)

Founded in 1966 by Christopher Freeman, SPRU was one of the first interdisciplinary research centres in the field of science and technology policy. Today, with over 70 faculty members, SPRU remains at the forefront of new ideas, problem-orientated research, inspiring teaching, and creative, high impact engagement with decision makers across government, business and civil society. Our research addresses pressing global policy agendas, including innovation challenges posed by the digital economy, the future of industrial policy, inclusive economic growth, the politics of scientific expertise, energy policy, security, entrepreneurship, and pathways to a more sustainable future. SPRU researchers are driven by a desire to tackle real-world questions, whilst also contributing to a deeper understanding of how science, technology and innovation is shaping today's world. With a community of over 140 MSc and doctoral students from all over the world, SPRU is also well known for its high quality, research-led teaching programmes.

The project

PILLARS provides novel analyses, forecasted scenarios, and a policy toolkit to understand the future of work in European regions, within a Global economy. PILLARS will jointly study: (i) direct labour market effects of emerging automation technologies, new functional specialisation within and across Global Value Chains (GVCs), and industrial transformations (including how such effects vary across demographics such as gender, age cohorts, and ethnicity); (ii) indirect labour market effects, mediated by the mismatch between demand for new and emerging skills and those acquired by workers.

To do so, PILLARS will combine (i) a comprehensive analysis of past heterogeneous impacts – across all European regions, over three decades, and for different automation technologies – with (ii) foresight analysis of emerging automation technologies, industries and skills, (iii) the evaluation of past and current labour market policies, (iv) a scenario analysis of future pathways, and (v) policies and tools co-designed with an international stakeholders' platform to address future challenges of European labour markets.

See further details here: https://www.h2020-pillars.eu

3.   Job Description

Job Title: Research Fellow in Economics of Innovation and the Future of Work

Grade: Research Fellow I, Grade 7

School: University of Sussex Business School

Location: Jubilee Building, University of Sussex, Falmer, Brighton, UK

Responsible to: Principal Investigator through to Head of School

Direct reports: n/a

Key contacts: Members of research group, members of faculty within the School and University.

Role description: Research Fellow I is an early career-grade research position. Post-holders will be expected to contribute to the work of the research team, and also to develop their research skills with support from more experienced members of staff.

PRINCIPAL ACCOUNTABILITIES

1. To engage in individual and/or collaborative research activity resulting in high-quality publications; and to develop research funding and knowledge exchange income individually or in collaboration with others, as appropriate, depending on the size and scope of the bid.

2. To contribute to School teaching activities.

KEY RESPONSIBILITIES

1. Research, Scholarship & Enterprise

1.1 Develop research objectives and proposals for own or joint research, at acceptable levels, with assistance if required.

1.2 Conduct research projects individually and in collaboration with others.

1.3 Analyse and interpret research findings and draw conclusions on the outcomes.

1.4 Produce high-quality research outputs for publication in monographs or recognised high-quality journals, or performance/exhibition, as appropriate, and contribute to the School's REF submission at acceptable levels of volume and academic excellence.

1.5 Contribute to the preparation of proposals and applications to external bodies, for example for funding purposes.

1.6 Individually or with colleagues, explore opportunities for enterprise activity, knowledge exchange income and/or consultancy, where permissible.

1.7 Build internal contacts and participate in internal networks and relevant external networks in order to form relationships and collaborations.

1.8 Continually update knowledge and understanding in field or specialism, and engage in continuous professional development.

2. Teaching & Student Support

2.1 Undertake teaching duties, if required.

2.2 Assist in the assessment of student knowledge and supervision of student projects if required.

2.3 Assist in the development of student research skills, for example as part of a postgraduate supervision team.

3.   Contribution to School & University

3.1   Attend and contribute to relevant School and project meetings.

3.2   Undertake additional duties, as required by the Principal Investigator and/or Head of School.

4.   Role-specific duties

4.1 Combine unique data on emerging technologies (estimated using textual information from patents, publications and software) and granular data on the changing demand for skills and tasks that these technologies may generate (estimated using textual information from Online Job Vacancies for all European countries);

4.2 Estimate the exposure of industries and occupations to emerging automation technologies combining data on technology outputs and on the job market vacancies of adopting firms.

4.3 Combine machine learning to create crosswalks between science and technology data (patents and publications), industry and occupations classifications.

4.4 Estimate the impact of the adoption of automation technologies on the changes in the proximity of industries and occupations within and between regions in Europe.

4.5 Support the writing of methodological and analytical publishable project deliverables in collaboration with project team members.

4.6 Collaborate closely with parallel tasks aimed at identifying emerging automation technologies using several unstructured sources of data and as well as a Global Delphi survey to map experts opinions.

4.7 Contribute to the data validation activities through workshops with experts.

4.8 Work in collaboration with a team of top innovation scholars, economists, and job market data scientists in UNU-MERIT, SPRU, Ifo and [partner organisations](#);

4.9 Participate in projects meetings and numerous high level workshops and seminars to refine methods and data;

4.10   Present results at international conferences.

This Job Description sets out current duties of the post that may vary from time to time without changing the general character of the post or level of responsibility entailed.

INDICATIVE PERFORMANCE CRITERIA

- A PhD or equivalent scholarly or relevant professional activity

- Pursuing a line of independent research within a research group.

- Publishing research (either from a recently completed PhD or new original research).

- Other forms of externally recognised professional practice of creative output of a standing equivalent to regular publication of original research.

- Initiating, developing or participating in links between the University and external bodies such as business and industry, the professions, community organisations and policy-makers.

- Evidence of successful engagement in teaching or supervision.

PERSON SPECIFICATION

ESSENTIAL CRITERIA

1.   Normally educated to doctoral level, or other equivalent qualification, or appropriate level of experience, as appropriate to the discipline (see role-specific criteria below).

2.   Evidence of engagement in high-quality research activity.

3.   Excellent presentation skills, with the ability to communicate effectively, both orally and in writing, with students, colleagues and external audiences.

4.   Ability to work individually on own initiative and without close supervision, and as part of a team.

5.   Ability to exercise a degree of innovation and creative problem-solving.

6.   Excellent organisational and administrative skills.

7.   Ability to prioritise and meet deadlines.

8.   Excellent IT skills.

ESSENTIAL ROLE-SPECIFIC CRITERIA

1. A PhD (or close to completion) in Economics, Economics of Innovation, Labour economics, Data Science, Geography or related quantitative social sciences
2. Experience with the analysis of STI data (patents and publications)
3. Excellent programming skills with data analysis packages (SQL, Python, R)
4. Good knowledge of the literature on employment and technological change
5. Ability to explore new unstructured data and methods, and work in an interdisciplinary, collaborative, and stimulating team and project;

DESIRABLE CRITERIA

1. Emerging track record of high-quality publications in reputable journals and other appropriate media of similar standing.
2. Experience of generating research or knowledge exchange income.
3. Experience in analyzing online job market vacancies, or other unstructured data
4. Ability to work with an interdisciplinary team
5. Experience with working and interacting within large scale research projects and consortia