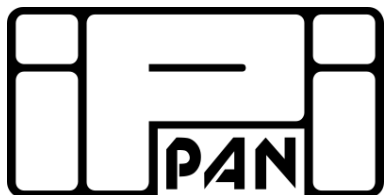


## Postdoc Fellowship, Grant 2018/31/B/ST6/03003



|                       |   |
|-----------------------|---|
| <b>Deadline</b>       | <b>17.08.2021</b>   |
| <b>Institution</b>    | Institute of Computer Science,<br>Polish Academy of Sciences                              |
| <b>Research Group</b> | Cryptography  |
| <b>Project Title</b>  | <i>ComCrypt</i> – Efficient and Secure Algorithms<br>for Joint Compression and Encryption |
| <b>Funding Body</b>   | National Science Centre   |
| <b>Contact</b>        | Józef Pieprzyk <a href="mailto:josef.pieprzyk@gmail.com">josef.pieprzyk@gmail.com</a>     |

### Employment Conditions

- \* Position is full time from 20 August 2021 till 20 June 2022.
- \* Salary is PLN 8,375 per month (gross).

### Essential Criteria

- \* PhD degree in Computer Science or Mathematics (or in closely related field). The candidate should hold their PhD for no longer than 7 years (excluding maternity, parenthood and guardian leaves) or in other words, their PhD should be completed in or after 2012 in case there is no leave.
- \* Solid background in Mathematics and Computer Science.
- \* Excellent research track record confirmed by publications in quality conference proceedings and/or journals.
- \* Excellent programming skills.
- \* Good English language skills (in writing, reading and speaking).

### Desired Criteria

- \* Knowledge of Cryptography and Coding Theory with an emphasis on compression coding.
- \* Experience with mathematics software such as Maple, Magma and Matlab.

### Job Description

- \* Development of theoretical underpinnings of joint compression and encryption.
- \* Analysis of efficiency and complexity of ANS compression algorithms.
- \* Design of ComCrypt algorithms for different levels of security.
- \* Cryptographic analysis of ComCrypt algorithms (algebraic, linear and differential).

### Application Procedure

- \* The following documents are required:
  - cover letter with the following statement: “*I give my consent to the Institute of Computer Science, Polish Academy of Sciences, for processing my personal data that are necessary for recruitment purposes*”,
  - copy of PhD degree certificate,
  - curriculum vita (CV), which provides information about your research activities, participation in research projects, academic visits/seminars and awards,
  - publication list.
- \* The documents are to be sent via email to [josef.pieprzyk@gmail.com](mailto:josef.pieprzyk@gmail.com) by the deadline. The preferred format is pdf.
- \* Shortlisted candidates will be interviewed (using either Skype or Zoom).
- \* Final decision is expected to be made soon after the interviews.