CALL FOR A RESEARCHER
EDITAL PARA A CONTRATAÇÃO DE INVESTIGADOR

Reference: CTTI_08_DEZ_2022@UNINOVA
Referência: CTTI_08_DEZ_2022@UNINOVA

UNINOVA – Instituto de Desenvolvimento de Novas Tecnologias, by decision of the Executive Committee, opens an international call to hire a Researcher, under the Special Investigator regime, over a fixed term contract and in part-time under the following Research projects funded by the European Commission’s Horizon 2020 and H2020 programmes:

O UNINOVA – Instituto de Desenvolvimento de Novas Tecnologias, por decisão da Comissão Executiva, abre concurso internacional para a contratação de um Investigador, no regime de Investigador Especial, através de um contrato a termo certo e em regime de tempo parcial, no âmbito dos seguintes projetos de Investigação financiados pelos Programas H2020 e Horizonte 2020 da Comissão Europeia:

- SMART4HEALTH – 826117 – Citizen-centred EU-EHR exchange for personalised health
- INEDIT – 869952 – open INnovation Ecosystems for Do It Together process
- i4Q – 958205 – Industrial Data Services for Quality Control in Smart Manufacturing,
- Vessel-AI – 957237 - Enabling Maritime Digitalization by ExtremeScale Analytics, AI and Digital Twins
- RE4DY – 101058384 – European Data as a PROduct Value Ecosystems for Resilient Factory 4.0 Product and ProDuction Continuity and Sustainability.
- AIDEAS – 101057294 – AI Driven industrial Equipment product life cycle boosting Agility, Sustainability and resilience;

Admission Requirements/Profile of Candidates:

Applicants may be any Portuguese national, foreign and stateless candidates that hold the following requirements:

- PHD in Electrotechnical and Computer Engineering (preferential) or similar.
- Specialization in “Industrial Information Systems” (preferential).
- Minimum of 5 years of proven experience in applied research, working in multinational and multidisciplinary teams such as the ones of European research projects:
  - Timely execution of R&D according to defined project plans
  - Efficient communication with different project partners
  - Support the coordination of junior researchers and developers
  - Support to the preparation of new project proposals
- Knowledgeable in the application of methodologies and technologies for digital transformation within different sectors of society, including manufacturing, maritime or intelligent transportation systems:
- Data Engineering and Data Science
- Big Data Solutions
- Internet of Things
- Interoperability of Systems and Applications

- Experience in the organization of international events such as workshops and conferences;
- Fluency in portuguese and English (written and spoken) - mandatory;
- Good communication and presentation skills;
- Experience in preparing project deliverables and reports;
- Proactivity and ability to work under pressure.
- Immediate availability (mandatory).

Requisitos de Admissão/Perfil dos candidatos:

Os candidatos podem ser nacionais, estrangeiros e apátridas que possuam os seguintes requisitos:

- Doutoramento em engenharia Eletrotécnica e de Computadores.
- Experiência mínima comprovada de no mínimo 5 anos em investigação aplicada, trabalhando em equipas multinacionais e multidisciplinares tais como as de projetos Europeus:
  - Execução pontual de R&D de acordo com os planos de trabalho;
  - Comunicação eficiente entre diferentes parceiros dos projetos;
  - Apoiar a coordenação de investigadores júnior e developers;
  - Suporte à preparação de novas propostas de projetos;
- Domínio de estratégias e tecnologias para a transformação digital em vários sectores da sociedade, nomeadamente o da manufatura, o marítimo, ou sistemas de transportes inteligentes:
  - Engenharia de Dados e Ciência de Dados
  - Soluções em Big Data
  - Internet das Coisas
  - Interoperabilidade de Sistemas e Aplicações
- Experiência na organização de eventos internacionais, tais como workshops e conferências;
- Fluente na língua Portuguesa e Inglesa (escrita e falada) – obrigatório;
- Excelente capacidade de comunicação e de apresentação;
- Experiência na preparação de entregáveis e relatórios de projeto;
- Proatividade e capacidade de trabalhar sob pressão.
- Disponibilidade Imediata (obrigatório).

Applicable legislation:

- Administrative Procedure Code, as republished in Decree-Law nº 4/2015, from 7th January in its current version (CPA).

Legislação aplicável:

- Código do Procedimento Administrativo, republicado pelo Decreto-Lei nº 4/2015, de 7 de janeiro, na sua versão atual (CPA).
Work Plan Activities:
The works are part of the research activities of the SMART4HEALTH – 826117 - Citizen-centred EU-EHR exchange for personalised health; INEDIT – 869952 – open iNnovation Ecosystems for Do It Together process; i4Q – 958205 – Industrial Data Services for Quality Control in Smart Manufacturing; Vessel-AI – 957237 - Enabling Maritime Digitalization by ExtremeScale Analytics, AI and Digital Twins; RE4DY – 101058384 – European Data as a PRoduct Value Ecosystems for Resilient Factory 4.0 Product and ProDuction Continuity and Sustainability; AIDEAS – 101057294 – AI Driven industrial Equipment product life cycle boosting Agility, Sustainability and resilience. Specifically:

SMART4HEALTH:
Contribute for the following tasks of the project:

• WP3 - 4HealthNavigator portal: services and applications layer implementation
  o T3.10 - 4HealthNavigator portal test and validation

INEDIT:
Contribute for the following tasks of the project:

• WP6: Use cases experiments demonstration and evaluation
  o T6.6 – Test and evaluation of results
    ▪ Results evaluation and assessment of the project demonstration campaign outcome
• WP7: Communication, Dissemination and Exploitation
  o T7.4 – Scientific & Industrial publications and conferences & fairs

i4Q:
Contribute for the following tasks of the project:

• WP6: VALUATE: Piloting and Demonstrating
  o T6.5 - RIASTONE - Advanced In-line Inspection for incoming Prime Matter Quality Control
  o T6.7 - Generic Pilot. i4Q Solutions Demonstrator
  o T6.8 - Continuous Integration and Validation
• WP7: DISSEMINATE: Communication, Dissemination and Standardisation
  o T7.1 - Target-Driven Dissemination Strategy, Plan, and Reporting
  o T7.4 - Industry Clustering and Regional Interactions, DIH Connection, Supporting Partners
  o T7.6 - Standardisation
• WP8: XPLOIT: Business Approach and Market Preparation
  o T8.4 - Creation of i4Q Start-up and Sustainability Analysis
  o T8.6 - Leveraging Additional Funds for the i4Q Exploitation Phase
Vessel-AI:
Contribute for the following tasks of the project:

- **WP2**: Extreme-scale Data Services
  - T2.1 - Data Ingestion and lifecycle management
  - T2.2 - Data Curation, Anonymisation and Semantic Enrichment for Extreme Data
  - T2.3 - Data storage and High Performance, Distributed Query Engine
- **WP3**: HPC Services and Resources management
  - T3.1 - High Performance Computing for Extreme-scale AI Experimentation
  - T3.2 - Parallelisation, Scalability and Resources management Testing on VesselAI scenarios
  - T3.3 - HPC VesselAI Services Layer
- **WP4**: Artificial Intelligence Services and Synergy with the AI On-Demand Platform
  - T4.3 - Data Validation and ML / Neural Networks Models Definition
  - T4.4 - Models Training and Federated Learning
  - T4.6 - Advanced Visualisations and Reports Engine
- **WP5**: VesselAI Integration, Security and Technical Evaluation
  - T5.2 - VesselAI Digital Twins and Maritime Apps Integration
- **WP7**: Dissemination and Communication
  - T7.1-Planning Dissemination, Communication and Community Engagement
  - T7.2-Project Communication Activities
  - T7.3-Dissemination and Community Engagement
- **WP8**: Exploitation and Business Cases Development
  - T8.1-Project Exploitation Strategy and IPR Management

RE4DY:
Contribute for the following tasks of the project:

- **WP2**: Digital 4.0 Continuum Reference Architecture for Active Resiliency
  - T2.1 - Use-case analysis & pilot’s requirements
  - T2.2 - Integrated resilient manufacturing & supply network engineering framework & strategies
  - T2.3 - Digital 4.0 continuum reference architecture design
- **WP3**: Continuity Management Toolkit for Industrial Digital Thread & Cognitive Twin Fabrics
  - T3.6 - Federated learning & on-demand trusted industrial AI continuous delivery platform
  - T3.7 - Continuous delivery services for executable cognitive digital twin fabric
  - T3.8 - Asset deployment and qualification in Testing & Experimental Facility
- **WP4**: Large-Scale Trials of Resilient Smart Connected Factory 4.0 Process Engineering
  - T4.1 - Pilot set-up, resilient factories & supply chain design and value network data preparation
  - T4.2 - Proof of concept validation for resilient connected factory 4.0 service engineering
  - T4.3 - Large scale & on-site trials
T4.4 - Pilot area KPI collection and benchmarking data

WP6: Dissemination, Exploitation, Skills & Global Impact
  - T6.1 - Awareness raising, industrial demonstrations, communication and PR office
  - T6.2 - Didactic & Learning Factory Network Academy and European Network of DIHs
  - T6.3 - Impact analysis & commercial exploitation

AIDEAS:
Contribute for the following tasks of the project:

- WP2: DESIGN: AIDEAS Framework Design:
  - T2.3 - Usage Viewpoint
- WP4: BUILD: AIDEAS 4 Industrial Equipment Manufacturing
  - T4.1 - AI for Materials and Components Procurement
  - T4.4 - Machine Passport: Manufacturing Data
  - T4.5 - Continuous Integration and Validation
- WP5: BUILD: AIDEAS 4 Industrial Equipment Use
  - T5.1 - AI for Industrial Equipment Initial Calibration
  - T5.6 - Continuous Integration and Validation
- WP6: BUILD: AIDEAS 4 Industrial Equipment Repair-Reuse-Recycle
  - T6.4 - Machine Passport: Repair-Reuse-Recycle Data
- WP7: VALUATE: Piloting and Demonstrating
  - T7.5 - Impact Assessment and KPI Validation of AIDEAS Solutions
  - T7.6 - Roadmap, Replicability and Lessons Learned

Plano de Trabalhos:
Os trabalhos inserem-se no âmbito das atividades de investigação dos vários projetos, SMART4HEALTH – 826117 - Citizen-centred EU-EHR exchange for personalised health; INEDIT – 869952 – open Innovation Ecosystems for Do It Together process; i4Q – 958205 – Industrial Data Services for Quality Control in Smart Manufacturing; AIDEAS – 101057294 – AI Driven industrial Equipment product life cycle boosting Agility, Sustainability and resilience; COMMUNITAS – 101096508 – Bound to accelerate the roll-out and expansion of Energy Communities and empower consumers as fully-fledged energy market players. Nomeadamente:

SMART4HEALTH:
Contribuir para as seguintes atividades do projeto:

- WP3 - 4HealthNavigator portal: services and applications layer implementation
  - T3.10 - 4HealthNavigator portal test and validation

INEDIT:
Contribuir para as seguintes atividades do projeto:
• WP6: Use cases experiments demonstration and evaluation
  o T6.6 – Test and evaluation of results
    ▪ Results evaluation and assessment of the project demonstration campaign outcome
• WP7: Communication, Dissemination and Exploitation
  o T7.4 – Scientific & Industrial publications and conferences & fairs

i4Q:
Contribuir para as seguintes atividades do projeto:

• WP6: VALUATE: Piloting and Demonstrating
  o T6.5 - RIASTONE - Advanced In-line Inspection for incoming Prime Matter Quality Control
  o T6.7 - Generic Pilot. i4Q Solutions Demonstrator
  o T6.8 - Continuous Integration and Validation
• WP7: DISSEMINATE: Communication, Dissemination and Standardisation
  o T7.1 - Target-Driven Dissemination Strategy, Plan, and Reporting
  o T7.4 - Industry Clustering and Regional Interactions, DIH Connection, Supporting Partners
  o T7.6 - Standardisation
• WP8: XPLOIT: Business Approach and Market Preparation
  o T8.4 - Creation of i4Q Start-up and Sustainability Analysis
  o T8.6 - Leveraging Additional Funds for the i4Q Exploitation Phase

Vessel-AI:
Contribuir para as seguintes atividades do projeto:

• WP2: Extreme-scale Data Services
  o T2.1 - Data Ingestion and lifecycle management
  o T2.2 - Data Curation, Anonymisation and Semantic Enrichment for Extreme Data
  o T2.3 - Data storage and High Performance, Distributed Query Engine
• WP3: HPC Services and Resources management
  o T3.1 - High Performance Computing for Extreme-scale AI Experimentation
  o T3.2 - Parallelisation, Scalability and Resources management Testing on VesselAI scenarios
  o T3.3 - HPC VesselAI Services Layer
• WP4: Artificial Intelligence Services and Synergy with the AI On-Demand Platform
  o T4.3 - Data Validation and ML / Neural Networks Models Definition
  o T4.4 - Models Training and Federated Learning
  o T4.6 - Advanced Visualisations and Reports Engine
• WP5: VesselAI Integration, Security and Technical Evaluation
  o T5.2 - VesselAI Digital Twins and Maritime Apps Integration
• WP7: Dissemination and Communication
  o T7.1-Planning Dissemination, Communication and Community Engagement
  o T7.2-Project Communication Activities
**RE4DY:**

Contribuir para as seguintes atividades do projeto:

- WP2: Digital 4.0 Continuum Reference Architecture for Active Resiliency
  - T2.1 - Use-case analysis & pilot’s requirements
  - T2.2 - Integrated resilient manufacturing & supply network engineering framework & strategies
  - T2.3 - Digital 4.0 continuum reference architecture design
- WP3: Continuity Management Toolkit for Industrial Digital Thread & Cognitive Twin Fabrics*
  - T3.6 - Federated learning & on-demand trusted industrial AI continuous delivery platform
  - T3.7 - Continuous delivery services for executable cognitive digital twin fabric
  - T3.8 - Asset deployment and qualification in Testing & Experimental Facility
- WP4: Large-Scale Trials of Resilient Smart Connected Factory 4.0 Process Engineering
  - T4.1 - Pilot set-up, resilient factories & supply chain design and value network data preparation
  - T4.2 - Proof of concept validation for resilient connected factory 4.0 service engineering
  - T4.3 - Large scale & on-site trials
  - T4.4 - Pilot area KPI collection and benchmarking data
- WP6: Dissemination, Exploitation, Skills & Global Impact
  - T6.1 - Awareness raising, industrial demonstrations, communication and PR office
  - T6.2 - Didactic & Learning Factory Network Academy and European Network of DIHs
  - T6.3 - Impact analysis & commercial exploitation

**AIDEAS:**

Contribuir para as seguintes atividades do projeto:

- WP2: DESIGN: AIDEAS Framework Design:
  - T2.3 - Usage Viewpoint
- WP4: BUILD: AIDEAS 4 Industrial Equipment Manufacturing
  - T4.1 - AI for Materials and Components Procurement
  - T4.4 - Machine Passport: Manufacturing Data
  - T4.5 - Continuous Integration and Validation
- WP5: BUILD: AIDEAS 4 Industrial Equipment Use
  - T5.1 - AI for Industrial Equipment Initial Calibration
  - T5.6 - Continuous Integration and Validation
- WP6: BUILD: AIDEAS 4 Industrial Equipment Repair-Reuse-Recycle
  - T6.4 - Machine Passport: Repair-Reuse-Recycle Data
• WP7: VALUATE: Piloting and Demonstrating
  o T7.5 - Impact Assessment and KPI Validation of AIDEAS Solutions
  o T7.6 - Roadmap, Replicability and Lessons Learned

**Members of the Jury:**
The jury has the following composition:
- President – João Francisco Alves Martins
- Member nº 1 – Ruben Duarte Dias Costa
- Member nº 2 – Carlos Manuel de Melo Agostinho

**Start Date and Workplace:**
The contract under the Category of Researcher is expected to start in January 2023 and will last only for the period necessary for the execution of the workplans described above, which is expected to last 24 months. The project will be developed at UNINOVA, at other facilities located at FCT / NOVA Campus and/or other necessary locations to its execution.

**Monthly fees:**
Gross monthly Remuneration will be in accordance with salary of the indexes 55 to 75 of the TRU – Single Remuneration Table, approved by Ordinance No. 1553-C / 2008, according to the experience presented by the candidate.

**Application process:**
The deadline for submitting applications is set at 8 working days after the publication of this call and the application documents (indicated below) should be sent, in PDF format, to the e-mail recrutamento@uninova.pt indicating the reference of the position (mandatory):

a) Motivation Letter in English;
b) Detailed CV in English;
c) Certificate of Qualifications

**NOTE:** The non-compliance with these requirements determines the immediate rejection of application. False statements provided by the candidates shall be punished by law.

**IMPORTANT NOTE:** In the event the degree was awarded by a foreign higher institution, the degree must comply with the provisions of Decree-Law nº 341/2007, 12 October, and all formalities established there must be fulfilled by applications deadline. False statements provided by the candidates shall be punished by law. UNINOVA promotes a non-discrimination and equal access policy, wherefore no candidate can be privileged, benefited, impaired or deprived of any rights whatsoever, or be exempt of any duties based on their ancestry, age, sex, sexual preference, marital status, family and economic conditions, instruction, origin or social conditions, genetic heritage, reduced work capacity, disability, chronic illness, nationality, ethnic origin or race, origin territory, language, religion, political or ideological convictions and union membership.

Pursuant to Decree-Law nr 29/2001 of 3rd February, disabled candidates shall be preferred in a situation of equal classification, and said preference supersedes any legal preferences. Candidates must declare, on their honour, their respective disability degree, type of disability and communication / expression means to be used during selection period on their application form, under the regulations above.

**Processo de Candidatura:**

O prazo de submissão de candidaturas está fixado em 8 dias úteis após a publicação deste edital e os documentos a apresentar (abaixo indicados) deverão ser enviados, em formato PDF, para o seguinte e-mail: recrutamento@uninova.pt, indicando a referência do concurso (obrigatório):

a) Carta de Motivação em Inglês;
b) Curriculum Vitae detalhado em Inglês;
c) Certificado de Habilitações

**NOTA:** A não conformidade com estes requisitos determinará a rejeição imediata da candidatura. Falsas declarações fornecidas pelos candidatos serão punidas por lei.

**NOTA IMPORTANTE:** Salientamos que os graus académicos obtidos em países estrangeiros necessitam de reconhecimento por uma Instituição Portuguesa de acordo com o Decreto-lei nº. 66/2018, de 16 de agosto e a Portaria nº. 33/2019, de 25 de janeiro. A apresentação do reconhecimento é obrigatória para a assinatura do contrato. Falsas declarações fornecidas pelos candidatos são punidas por lei. UNINOVA promove ativamente uma política de não discriminação e de igualdade de acesso pelo que nenhum candidato pode ser beneficiado, prejudicado ou privado de qualquer direito em razão, nomeadamente de ascendência, idade, sexo, deficiência, orientação sexual, doença crónica, nacionalidade, origem étnica ou raça, religião ou convicções políticas. De acordo com o Decreto-Lei nº 29/2001, de 3 de fevereiro, os candidatos com deficiência devem ser preferidos, numa situação de igual classificação, e essa preferência substitui quaisquer preferências legais. Os candidatos devem declarar, por sua honra, o respetivo grau de deficiência, o tipo de deficiência e os meios de comunicação / expressão a serem utilizados durante o processo de candidatura.

**Evaluation Criteria:**

- **Criterion A) – Curriculum Analysis (85%)** – The curriculum will be qualitatively analysed concerning its content and relevance for the tasks to be performed, namely: executed and / or published scientific work, with special emphasis on areas related to the work plan (25%); research experience and relevant knowledge in the techniques indicated in the candidate profile (60%).
Criterion B) – Motivation Letter (15%) – Based on the letter of motivation it will be evaluated the motivation and interest for the activities to be performed (10%) and command of the English language (5%).

If the Jury finds it essential, it may conduct an interview with the candidates to clarify the elements and evaluate the possible scientific frameworks in the project.

The jury shall deliberate by means of a roll-call vote based on the selection criteria. In the event of a tie, the decision will be the responsibility of the chairman of the jury.

After evaluation of all admitted applications, the jury will write a meeting minute with all process of recruitment, evaluation and selection including an ordered short list of approved candidates and their respective classification and final decision of the jury.

The final decision of the jury shall be validated by the Head of the Institution, who is also in charge of deciding about the hiring.

Critérios de avaliação:

• Critério A) – Análise de Currículo (85%) – O currículo será qualitativamente analisado, no que diz respeito ao seu conteúdo e relevância para as tarefas a serem executadas, a saber: trabalhos científicos executados e/ou publicados, com especial ênfase nas áreas relacionadas com o plano de trabalho (25%); experiência de investigação e conhecimento das técnicas indicadas no perfil do candidato (60%).

• Critério B) – Carta de Motivação (15%) - Com base na carta de motivação será avaliada a motivação e interesse pelas atividades a serem realizadas (10%) e o domínio da língua Inglesa (5%).

Caso o Júri achar essencial, poderá realizar uma entrevista com os candidatos para clarificação dos elementos e avaliação dos possíveis enquadramentos científicos no projeto.

O júri delibera por meio de votação nominal, com base nos critérios de seleção. Em caso de empate, a decisão será da responsabilidade do presidente do júri.

Após a avaliação de todas as candidaturas admitidas, o júri redigirá uma ata da reunião com a descrição de todo o processo de recrutamento, avaliação e seleção, incluindo a elaboração de uma lista ordenada dos candidatos aprovados com a respetiva classificação e decisão final do júri.

A decisão final do júri será validada pelo dirigente da instituição contratante, que também é responsável pela decisão sobre a contratação.

Form of advertising/notification of results: The results of the evaluation are disclosed within 60 working days from the end of the application submission period, by notification of the candidates, made by email. The results will be also published on the UNINOVA website.

Forma de publicitação/notificação dos resultados: Os resultados da avaliação são divulgados no prazo de 60 dias úteis a contar do final do prazo de apresentação das candidaturas, essa notificação será efetuada através de e-mail para todos os candidatos inscritos. Os resultados também serão publicados no site da UNINOVA.

Preliminary Hearing and Final Decision Deadline:
After communicating the provisional list of the results of the evaluation, the candidates have a period of 10 working days to express their opinion during a prior hearing of interested parties, pursuant to articles 121 et seq. of the Code of Administrative Procedure.

The final decision will be rendered after the analysis of the statements presented during a prior hearing of interested parties. A complaint may be filed against the final decision within 15 working days, or, alternatively, an appeal may be filed within 30 working days, both counting from the respective notification.

**Audiência Preliminar e Prazo Final de Decisão:**

Após comunicação da lista provisória dos resultados da avaliação, os candidatos dispõem de um período de 10 dias úteis para, querendo, se pronunciarem em sede de audiência prévia de interessados, nos termos dos artigos 121º e seguintes do Código do Procedimento Administrativo.

A decisão final será proferida após a análise das pronúncias apresentadas em sede de audiência prévia de interessados. Da decisão final pode ser interposta reclamação no prazo de 15 dias úteis, ou, em alternativa, interposto recurso no prazo de 30 dias úteis, ambos contados a partir da respetiva notificação.

**Non-discrimination policy**

UNINOVA promotes actively a non-discrimination and equal access policy, wherefore no candidate can be privileged, benefited, impaired or deprived of any rights whatsoever, or be exempt of any duties based on their ancestry, age, sex, sexual preference, marital status, family and economic conditions, instruction, origin or social conditions, genetic heritage, reduced work capacity, disability, chronic illness, nationality, ethnic origin or race, origin territory, language, religion, political or ideological convictions and union membership.

Pursuant to Decree-Law nr 29/2001 of 3rd February, disabled candidates shall be preferred in a situation of equal classification, and said preference supersedes any legal preferences. Candidates must declare, on their honor, their respective disability degree, type of disability and communication / expression means to be used during selection period on their application form, under the regulations above.

**Política de não discriminação**

A UNINOVA promove ativamente uma política de não discriminação e de igualdade de acesso, pelo que nenhum candidato(a) pode ser privilegiado(a), beneficiado(a), prejudicado(a) ou privado(a) de quaisquer direitos, ou ser isento/a de quaisquer deveres em razão da sua ascendência, idade, sexo, preferência sexual, estado civil, família e condições económicas, instrução, origem ou condições sociais, herança genética, capacidade de trabalho reduzida, deficiência, doença crónica, nacionalidade, origem étnica ou raça, território de origem, idioma, religião, convicções políticas ou ideológicas e filiação sindical.

Nos termos do Decreto-Lei n.º 29/2001, de 3 de fevereiro, os candidatos com deficiência são preferidos em situação de igualdade de classificação, prevalecendo a referida preferência sobre quaisquer preferências legais. Os candidatos devem declarar, por sua honra, o respetivo grau de deficiência, tipo de deficiência e meios de comunicação / expressão a utilizar durante o período de seleção no formulário de candidatura, nos termos do regulamento acima indicado.