



**Institute for Water
and Energy Sciences**

CALL FOR APPLICATIONS

Subject-matter Expert

eLearning Course 301 - The Nature of Entrepreneurial Practice & Business Model

Reference Number: 2020/GESCI/PAUWES-MDE/SME301

Applications to : <https://forms.gle/6uQFxbmZaZZYvwEdA>

Closing Date: 19th August 2020

1. Introduction and Background

The Pan African University Institute for Water and Energy Sciences (including Climate Change) (PAUWES)

PAUWES is one of the five hubs of the Pan African University – a project initiated by the African Union to revitalize higher education and research in Africa. It is a project that exemplifies excellence, enhances the attractiveness and global competitiveness of African higher education and research, and establishes the Pan African University at the core of Africa's development as part of a broad, integrated system of higher education across the African continent. It is hosted at the University of Tlemcen in Algeria and gathers excellent know-how to tackle the challenges faced in different African countries with regard to water, energy and climate change. In its core mandate to enhance the development of programmes in the areas of water, energy and climate change on the continent. PAUWES capitalizes on the youth potential and the development of their capacity and skills through education leading to entrepreneurship and the creation of start-ups, fostering therefore employability on the continent. For more information please visit www.pauwes.dz.

The Global e-Schools and Communities Initiative (GESCI)

The Global e-Schools and Communities Initiative ([GESCI](#)) is an International Non-Governmental organization founded on the recommendation of the United Nations Task Force on Information Communication Technology (ICT and headquarter in Nairobi, Kenya). GESCI is an accredited online training provider specialized in developing curricula and skills development programme leading to entrepreneurship. It envisions to have a world with widespread use and integration of digital technologies to achieve higher level of inclusiveness and equality, making use of efficient

ICT in the provision of different services including ICT based skills development for youth enterprise and employment.

The PAUWES – MDE Programme

The PAUWES Mini Grid, Digitalization and Entrepreneurship programme ([PAUWES-MDE](#)) is an Online Post-graduate programme implemented in the frame of the Transforming Energy Access Learning Partnership (**TEA-LP**) which supports universities to develop multidisciplinary and well-rounded curricula for postgraduate students with a view to bridging existing skills gaps in the Sub-Saharan Africa energy access sector.

PAUWES-MDE is being developed by PAUWES with the support of the Global e-Schools and Communities Initiative, and aims to strengthen youth's capacity on the continent with innovative business ideas in the mini-grid sector with technical and entrepreneurial skills for the creation of smart microgrid businesses and start-ups in Africa. It integrates actors, stakeholders and specificities of innovation and entrepreneurship ecosystems in the continent (Tech-Hubs, Fab-Labs/Makerspace, Mentoring and Business Angels, Pitch, Competition, etc.) with strengths of higher education systems geared toward skills and competences for the setup of start-up in a flexible and agile manner.

Mode of delivery

The programme is offered online with language of instruction being English. It will use problem based and experiential learning, following a blended approach that combines online lectures, tutorials, assignments, practical exercises and a practical internship in the private sector to refine the innovation prior to its development during a thesis. The programme will be built around a virtual incubator which will provide coaching/advice from mentors in the private sector and entrepreneurial sphere to students throughout the learning journey in the development of their innovation.

Students will be required to participate in practical classes (virtual lab) to ensure the application of the knowledge received, and given the focus of this programme on practical experience, assessment of and for learning mechanisms will be developed to include moderated self-assessment, peer reviews and assignment scoring. The themes of innovation and entrepreneurship will be central to all PAUWES-MDE assessments.

eLearning Course 301 - The nature of Entrepreneurial practice & business model

The online course the nature of Entrepreneurial practice & business model is being developed by PAUWES/GESCI to provide students with the salient features of the enterprise and its business evolution and will abstract the innovative and entrepreneurial practices which sustain the businesses/enterprises. It will explore the theoretical concepts pertaining to the development of successful start-up based-innovation in the mini-grid sector including the financial, technical and market dimensions of the evaluation of an enterprise for its success. As a result, the eCourse will specifically focus on criteria for successful establishment of entrepreneurial business/enterprise particularly in the mini/micro grid sector exploring design thinking concept, the Lean start-up

methodology and existing tools for the refinement of value proposition and the development of business models, case studies of the enterprise outlining the technical, financial and market dimensions.

To achieve this, online platforms and digital education tools will be utilized to offer a blend of self-study opportunities, exercises, assessments, and online discussion. Together, this will enable students to achieve the following learning outcomes (LOs):

Hard skills LOs:

The student will be able to:

- Apply the requirements, principles and best practices of management and leadership in the formation of networks (team, partners, etc.) around a startup project
- Analyze the foundation, key principles and methodologies (Design Thinking, Lean Startup) used in the field of innovation in the nexus digital technologies and mini-grid industry for the successful development of viable products and services
- Identify principles and importance of a value proposition that satisfy the customer needs in the set-up of a startup, and Lean startup principles and tools for the development of a unique customer-oriented prototype of product/service
- Examine how digital technology based mini-grid businesses have responded to identified business opportunities within their ecosystems taking into account market competitors and external factors (economical, political, etc.)
- Analyze the state-of-the-art methodologies in the industry to identify and assess the startup market
- Analyze the different marketing and business development strategies and best practices to achieve product-market fit in the digital technology and mini-grid nexus market
- Analyze the different business models, tools and best practices applicable for the choice of appropriate business model;
- Understand the importance of testing business model prior to launching startups, and analyze the art of business model pivoting in startup operation
- Analyze best practices in the development of strategic partnership with stakeholders of the ecosystem to ensure the sustainability and scalability of the start-up
- Analyze growth hacking techniques in the minigrid in Africa and best practices in building traction for sustainable growth
- Differentiate between the types of capital needs for a start-up and capital providers in the mini-grid sector
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- Identify the principles of De-risking a start-up, and preparation of an investor pitch deck
 - Undertake a case study of a related enterprise and design a visual presentation and a 03 minutes video of the pitch of the proposed innovation-based start-up
 - Identify the different principles involved in investments in the minigrid sector
- Apply the principles of start-up valuation, financial modeling and projections of the start-up in minigrid initiative
- identify different legal aspects inherent to the set-up and operation of a start-up including registration processes and intellectual property and tax filing

Soft skills LOs:

The student will be able to:

- Creatively apply the requirements, principles and best practices of management and leadership in the formation of networks (team, partners, etc.) around a startup project
- Critically examine the foundation, key principles and methodologies (Design Thinking, Lean Startup) used in the field of innovation in the nexus digital technologies and mini-grid industry for the successful development of viable products and services
- Critically examine principles and importance of a value proposition that satisfy the customer needs in the set-up of a startup, and Lean startup principles and tools for the development of a unique customer-oriented prototype of product/service
- Formulate the vision of the startup and the owner manager challenges
- Innovatively communicate ideas to others to attract customers and co-founders
- Exhibit the skills of team building and leading teams
- Network with stakeholders to engage with possible collaboration and cooperation opportunities
- Show respect for social and cultural diversity in addressing and tackling complex and ambiguous problems
- critically understand the different steps and methodology used to defining a problem and proposing adequate solutions
- hypothesize and reflect on the prototype of a product or a social start-up or service that will form the basis of a start-up
- critically analyze complex information using a combination of reporting, research, observation and case studies in conducting the feasibility of an innovation as a business, building understanding about how a customer navigates within their context

- critically analyze the market landscape/ecosystem's actors and drivers for the positioning of the startup
- Critically analyze external factors that can hinder the operation of a startup
- collaborate, reflect and autonomously abstract the key entrepreneurial practices and the innovative interventions needed to sustain successfully a business in the smart grid market
- pitch a market fit business model
- Raise an argument about innovation-based start-up to potential investors with an aim of raising funds

The pedagogy will be suitably adapted for flexible modes of engagement and encourage participants to critically analyze key concepts and apply theoretical insights using real life case studies where appropriate. For example, the course may consist of the following activities:

- Recorded lecture material that introduces new topics and explains key concepts.
- Interactive content that incorporates knowledge checks and formative assessment.
- Online peer-to-peer discussion of given topics guided by leading questions.
- Case studies of the enterprise outlining the technical, financial and market dimensions.

The duration of the eCourse will be **twelve (12) weeks** with a total workload of **80 hours**. There should be **ten hours** set aside for the case study. The course material should therefore be proportionately structured to fit within this timeframe.

2. Responsibilities:

Under the authority of the Director of PAUWES and direct supervision of the Project Coordinator at PAUWES and GESCI, the main objective of the position will be to develop content for eCourse 301, based on the proposed course and learning outcomes detailed above.

The appointed candidate shall carry out the following tasks:

- Review the curriculum outline (including desired course learning outcomes and objectives) and suggest any changes that may be required to improve the eCourse.
- Identify and review up-to-date literature, and prepare suitable existing content relevant to the topics set by the curriculum.
- Develop an outline for the eCourse that describes section titles, sub-section topics, case studies and key applications of the course for participants using the Course Blueprint Template that will be provided.
- Define the suitable content into time-based or content-based units that are driven by student-centered learning.
- Describe the teaching and learning activity for each unit including all 'in-class' activities (e.g. lectures, class exercises, practical's, field trips, etc.) as well as all 'independent study' (readings, assignments, etc.).
- Propose suitable learning activities and tasks that are aligned with the course's hard and soft skills learning outcomes.

- Compile a repository of reference material/key reading, to be cited in the outline.
- Include tables/figures/graphs and links to supporting media (e.g. online video material).
- Prepare clear and concise learning materials that are using strategies to engage online learners (slides that are not text-heavy and have a balance of visual and textual representation).
- Ensure the materials/visuals used as part of learning materials are copyright-free (OERs) taken from a list of suggested sources (such as Freepik, Unsplash, etc.).
- List/define keywords that are introduced in the lessons for use in a glossary and verify additional keywords identified by the Instructional Designer.
- Identify and integrate additional resource(s) needed such as software licenses or other online tools required for the completion of a learning activity/task.
- Prepare exercises, assessment methods (knowledge checks, multiple-choice questions, fill in the blanks, etc.) and set key milestones, including expected outputs (provide answer key).
- Prepare for recording of lectures and presentation (write a script and record videos or voiceover)
- Provide opportunities for learners who do not achieve expected minimum outcomes on quizzes to access key background texts to improve their subject content knowledge, rewrite the quiz to access the rest of the module.
- Review the quality and coherence of the course curriculum in consultation with members of the project team. Including didactic approach, assessment methods, key milestones and expected outputs.
- Respond to reviewers' comments and incorporate necessary revisions to the course outlines; and
- Perform other tasks assigned by the supervisor within the project.

The appointed consultant will submit the course outline and course book in a consistent format (Microsoft Word, PowerPoint, etc.), accompanied with supporting notes. Recorded lectures and presentations will also be expected and facilitated with the support of PAUWES.

3. Timeline, activities and outputs

Date	Activity	Outputs
Analysis and Design Phase		
24 th – 28 th August 2020	Review of the course curriculum outline and definition of the course learning assessment and activities	- Drafts of course outline and Course Blueprint Template provided.
31 st August – 4 th Sept 2020	Meeting with expert for drafts' review	- Review report on draft outline with recommendations for Improvement
Development Phase		

7 th -11 th Sept 2020	Development of detailed course book	Draft course book with detailed content that covers: - student learning activities - key readings - relevant learning materials from external sources (online video material, PowerPoint slides, references, etc.) - assignments, script, etc.
14 th Sept– 12 th Oct 2020	Iterative review process with project team	Final version of the full course book including all different aspects (modules, units, content, assignments, script, etc.)
12 th - 16 th Oct 2020	Recording of lectures	Video of the course

4. Deadline for Deliverables

- Draft outline of the course using the Course Blueprint Template provided. (28th August 2020)
- Review report on Drafts with Recommendations for Improvement (4th Sept 2020)
- Revised Drafts of course outline and Course Blueprint Template provided (4th Sept 2020)
- 1st Draft course book with detailed content, course assignments, references, etc. (11th Sept 2020)
- Final version of the course book including all different aspects (modules, units, content, assignments, references, script, etc.) (12th Oct 2020)
- Course's video clip and script (16th Oct 2020)

5. Required Qualifications and Experience:

- A PhD in an area related to the proposed curriculum. Candidates with a Master's degree and five (5) years of professional work experience in a related area would also be considered;
- Minimum three (3) years of professional work experience in entrepreneurship and business development in developing countries. Experience in developing curricula in a related subject would be highly desirable;
- Proven research and writing skills as reflected in peer reviewed articles in areas related to the course;

- Strong practical experience in project implementation gained through engagement with international organizations, fundraising and consultancy assignments;
- Proven didactic skills gained through teaching and curriculum development;
- Proven Knowledge of technical and entrepreneurship concepts and incubation procedures including human-centered design in fostering mini-grid entrepreneurial mindset
- Proven record in understanding mini-grid digital skills development, innovation, entrepreneurship and enterprise development within a supportive policy environment for national digitally driven mini-grid ecosystem
- Proven living lab designer and thinker who regularly provides consolidated working procedural techniques to enable adaption of organized working strategies
- Facilitate acquisition of technological content knowledge and design of appropriate services
- Proven knowledge of applying design thinking skills in understanding challenges, ideation, selection of ideas and prototyping
- Proven pipeline creation (and co-creation) for pre-seed investment and mentoring on the use of action research as the foundation for disruptive commercial ventures with well understood problem/opportunity and right user/customer combination to build a strong start up and enable pitching
- Models the design of African micro-Smart grids driven by technology innovation and entrepreneurship including analyzing different business models and providing strategies for resilience.
- Ability to consolidate collaboration within mini-micro smart grid ecosystems to cross-fertilize approaches towards rich a sustainable innovative venture
- Understanding of the African technology and innovation ecosystems and its capacity to address continental challenges towards a vibrant African tech ecosystem in mini-grid industry
- Proven record of maintaining sustainability through social business financing
- Prior engagement in the development of e-learning curricula and content would be an asset;
- Excellent oral and written communication skills in English are essential, other AU official languages could be an asset
- Ability to work within agreed timelines.
- Strong interpersonal skills demonstrated by the ability to work in a multicultural, multi-ethnic environment with sensitivity and respect for diversity
- Suitable qualified female candidates are highly encouraged to apply.

6. Remuneration:

The consultancy fee will be USD 2,400. This amount is inclusive of 20 % withholding tax under Kenyan legislation for nonresident consultants.

Payment of the Consultancy Fee will be made on the basis of deliverables, as follows:

- 30 % upon satisfactory completion and on approval by GESCI/PAUWES of the 1st Draft course book with detailed content, course assignments, references, etc.

- 70 % upon satisfactory completion and on approval by GESCI/PAUWES of all the deliverables including video's clip and script.

The successful candidate shall work remotely for a fixed period starting on 14th August 2020 and ending on 30th October 2020.

7. Application Procedure:

Interested applicants should submit their applications by filling the following online form before Wednesday 19th August 2020: <https://forms.gle/6uQFxbmZaZZYvwEdA>

The application includes the following:

- A cover letter stating how the applicant's qualifications and experience match the requirements of the position;
- A detailed Curriculum vitae;

All other relevant documents should be merged in a single PDF file.

All document should be named using the following format: [LAST_NAME] _PAUWES-MDE_SME301_ [FILE_NAME]

Only shortlisted candidates will be contacted. For further information on the consultancy you can contact the PAUWES-MDE Project Manager Assistant at: info@pauwes-mde.org