



# IEEE IASxPES ENSIT STUDENT BRANCH JOINT CHAPTER

## POWERNEX 1.0 Student Paper Contest

### Digital Twins's Impact in industry

In POWERNEX 1.0 we aim to encourage students to engage in scientific research and innovation to directly contribute in the advancement of technologies. The Student paper contest aims to explore the transformative potential of digital twins in the electronics industry, highlighting their applications, benefits, and future opportunities and it's open to students whom have a great passion for research.

#### SCOPE & TOPIC:

The primary goal of this contest is to inspire students from diverse fields and backgrounds to explore the concept of digital twins and their transformative impact on the industrial. By participating, students will deepen their understanding of digital twins, use them as a tool to develop innovative applications or solve current industry challenges, and enhance their research and writing skills by crafting high-quality scientific papers.

This contest also encourages innovation and prepares students for future opportunities in fields related to digital twins while empowering them to contribute to the advancement of the industry through creativity, knowledge, and practical solutions.

#### Goal of the contest:

The primary goal of this contest is to inspire students from diverse fields and backgrounds to explore the concept of digital twins and their transformative impact on the industrial.

#### Goal of the contest:

Participants are encouraged to explore applications such as product design, smart manufacturing, predictive maintenance, quality control, and supply chain optimization, as well as the enabling technologies like IoT, AI, big data, and cloud computing.

The scope also includes examining the benefits (e.g., operational efficiency, innovation, sustainability), challenges (e.g., technical complexity, security concerns, skill gaps), and future trends (e.g., Industry 5.0, AR/VR integration, autonomous systems) of digital twins.

#### RULES & CRITERIA:

- Each submission must have one author per paper; co-authors or team submissions are not allowed.
- Participants are responsible for ensuring their submissions do not violate intellectual property rights.
- Plagiarism or the use of third-party content without proper attribution will result in disqualification.

- The work need not be original in engineering or scientific content but should be original in treatment and clearly show the author's contribution to the subject.
- The submitted paper must respect the IEEE template (up to 6 pages using IEEE A4 template).
- The author must respect the submission dead-line. Late submissions will not be accepted.
- Submissions that do not meet this guidelines are automatically disqualified.

## **INSTRUCTIONS & DELIVERABLES:**

- This contest follows the general rules of IEEE student paper contests, the following Link directs you to the IEEE Region 8 Student paper contest for further clarifications : [r8.ieee.orgsac/spc-rules/](http://r8.ieee.orgsac/spc-rules/)
- The following link directs you to the proposed template: [www.overleaf.com/latex/templates/ieee-conference-template/grfzhnncsfqn](http://www.overleaf.com/latex/templates/ieee-conference-template/grfzhnncsfqn)
- We encourage participants to use digital libraries and quality resources such as: Google scholar, science direct and IEEE Xplore to find solid resources for their work.

## **SCORING:**

**Total score : 100 Points**

### **Relevance to Theme(10 Points)**

- The paper must directly address the contest theme: Digital Twins' Impact in Industry and clearly demonstrate how the content aligns with the applications, challenges, or future potential of digital twins in the electronics sector.

### **Depth of Research(25 Points)**

- The paper should showcase a thorough understanding of the topic, supported by credible data, case studies, and references.
- Superficial or poorly researched submissions will not meet the standard.

### **Innovation and Originality (25Points)**

- The paper should offer unique insights, novel approaches, or creative solutions to challenges in the E-industry.
- Evaluators will prioritize submissions that demonstrate fresh perspectives or innovative applications of digital twins and Papers that merely reiterate existing knowledge without adding value will score lower.

### **Clarity and Organization (20 Points)**

- The paper must be well-structured, with a logical flow of ideas and clear transitions between sections. It should be easy to read, with concise language and Proper use of headings, subheadings, and visual aids (e.g., charts, diagrams) will enhance readability.

### **Practical Implications(10 Points)**

- The paper should highlight the real-world applicability of digital twins in the industry.

### **Future Outlook(10 Points)**

- The paper should provide a forward-looking perspective on the role of digital twins in industry.

## **WINNERS:**

- Number of Winners : 3 teams
- Prizes : Will be announced later

## **IMPORTANT DATES:**

**-Infosession : 27 Feb 2025**

**-Submission deadline: 5 AVRIL 2025 23:59**



**Please contact us through the following email addresses :**

**ieeeiaspesensitsbjc@gmail.com**

**ayoub\_madyouni@ieee.org**

**mohamedamine\_elyanoubli@ieee.org**