

## DESCRIPTION OF THE INITIATIVE

### MIEA2023

#### « Promoting computer science among young women »

Heudiasyc lab UTC-CNRS & Informatic Department of UTC

*Hélène BALLET & Marie-Hélène ABEL*

*University of technology Compiègne, 60200, FRANCE*

**The computer science department of university of technology Compiègne (UTC) and the Heudiasyc research unit of UTC and CNRS have conducted several actions in 2022-2023 to promote the computer science field and digital sciences among young women.**

Marie-Hélène ABEL, professor and head of computer science department of UTC, is the equality and parity referent at the University of Technology of Compiègne, and Hélène Ballet, communication officer of Heudiasyc lab, is the equality referent for CNRS in the Heudiasyc lab. In this capacity, they have organized or collaborated on several initiatives:

- The [Equality Month](#) dedicated to raising awareness among administrative and teaching staff, as well as female and male students, about gender equality, organized in March 2023. This project aims to raise awareness within the community about gender equality and promote diversity in higher education.
- The 2nd edition of FAI "Women Future in Computer Science" competition at UTC, which aims to inspire interest in computer science and technology and attract more young women to the computer science program at UTC.
- "PIXELS" a [Summer School in Computer Science](#), organized from June 26th to June 29th at UTC, aimed at 20 high school students from the Hauts-de-France region, including 8 girls and 12 boys.

#### MORE DETAILS ABOUT ACTIONS :

##### 1/ FAI'22 « Women Future in Computer Science »

Rewards projects that aim to promote the orientation of young women towards scientific and technological education in computer science and the promotion of the computer engineering department at UTC. Specifically, this edition calls upon your talent to create sketches (videos, posters, comic strips, etc.) illustrating women evolving/contributing in the field of computer science. The objectives of this operation are:

- Inspire young women to pursue careers as computer engineers.

- Promote the education offered at UTC and careers in computer engineering to young women.
- Combat stereotypes and gender biases.
- Foster gender equality.

## **2/ Equality Month:**

A series of actions were implemented to promote this cause:

- **Inaugural conference** by [Isabelle Collet](#), "Women and Digital: Equal Practices, Inclusive Devices." This conference was live-streamed and made available for replay.
- **Workshop** on the theme "VSS in the Evening." The workshops, targeting UTC students, are led by the student association STOP VSS.
- **Film screening** and debate of "Les femmes de l'Ombre" (Women of the Shadows), organized by the student associations ciném'UTC and Sciences Egales.
- **Roundtable discussion** on "What Women Do in Computer Science" featuring representatives from Safran, Renault, an alumni leader from the start-up ONTBO, an alumni from Technion, and a sociologist and researcher from UTC.
- **Award ceremony** for the "Women Future in Computer Science" competition launched in November 2022.
- **Awarding** of "Gender Equality Management" labels.
- **Equality Mural** involving students, partners, and UTC participants.

⇒ **Thanks to this initiative, UTC was awarded the prize for the « most engaged school » in the "Equality Month" project of the ["Ingénieuses 2023" competition](#).**

[More information](#)

## **2/ PIXELS Summer School :**

From June 26th to June 29th, the Heudiasyc laboratory organized a summer school in computer science called "PIXELS" for 20 high school students from the Hauts-de-France region. This action is part of the unit's "parity-equality" initiative, which aims to promote computer science among young people, especially girls. The summer school was certified by CNRS. 90 applications were received for only 20 spots. 12 boys and 8 girls from secondary school to high school had the opportunity to explore various aspects of computer science over the course of one week, including:

- Programming & Secret Codes
- Image Processing
- Robotics & Control
- Virtual Reality
- Computer Science without a Computer

The program also included more recreational activities such as an Escape Game themed around computer science and demonstrations of the Heudiasyc laboratory's technological platforms (intelligent vehicles, immersive virtual reality room, railway supervision).

[More information](#)

## EVIDENCE OF ITS IMPACT

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- Increased visibility of UTC's commitment to gender equality through winning the "Most Engaged School" award in the "Ingénieuses 2023" competition. The award ceremony provided an opportunity to share experiences and best practices between participating universities.
- The first edition of the FAI competition in 2021 led to the creation of the student association "Sciences égales" by the competition's laureate. Its objective is to debunk gender biases surrounding scientific education and careers, and to validate any professional path regardless of gender. This association has conducted interventions in several high schools in Compiègne to showcase UTC and demonstrate that girls also pursue scientific studies.
- The various initiatives targeting young audiences have made us realize the importance of intervening from an early age, where biases can form, specifically in nursery and primary schools. Therefore, we are considering partnering with schools during the NSI (Digital Engineering Sciences) week in December 2023 to present workshops from the PIXELS summer school, focusing on virtual reality and control and robotics. Additionally, during this week, visits to companies will be organized for middle and high school students to raise awareness about careers in scientific research from an industry perspective.
- PIXELS summer school: A satisfaction questionnaire was conducted at the end of the week to evaluate the program and the proposed themes. Several young girls expressed their desire to pursue scientific studies after attending this program, as they realized it is a broad discipline that offers numerous career opportunities.