IEIC
INTERNATIONAL ELECTROMEDICAL INNOVATION COMPETITION

PENA
PEKAN ELEKTROMEDIK NASIONAL

NATIONAL ELECTROMEDICAL WEEK PROPOSAL

INTENATIONAL ELECTROMEDICAL INNOVATION COMPETITION (IEIC) 2026

"NEXT GENERATION HEALTCARE TROUGH" INTELLIGENT BIOSIGNAL, CONNECTED HEALTH,AND ADVANCED LIFE SUPPORT

BACKGROUND

The rapid development of health technology demands continuous innovation in medical instrumentation. As a concrete form of contribution, the Student Association of the Medical Electronics Technology Department at Poltekkes Kemenkes Surabaya, in collaboration with the Indonesian Electronics Engineering Student Association, presents the National Electronics Week 2026 (PENA 2026). This event features the Electromedical Innovation Competition (EIC) as a strategic platform for students to innovate and tackle medical instrumentation challenges. Through this competition, we are committed to sharpening the potential of the younger generation and encouraging the creation of concrete solutions to prepare globally competitive Electromedical professionals.

This series of events showcases the health innovation ecosystem through three main pillars:

1. Electromedical Innovation Competition (EIC): A platform for students to create medical instrumentation solutions that address technical challenges while improving public well-being.
2. Innovation Fair: Health Technology Innovation Exhibition: The highlight of the event that serves as a bridge between innovators, industry, and prospective students. As an exhibition and networking platform, it displays the best works and creates a collaborative space for the dissemination of practical health technology.

With these two pillars, IEIC has become an annual event to sharpen the potential of Electromedical generation who are competitive, innovative, and capable of providing answers to the ever-changing challenges in the healthcare world in Indonesia.
IEIC 2026 aims not only to spark innovation but also to build an ecosystem that supports the growth and sustainability of Indonesia's health tech innovations, from upstream to downstream.

GOAL

A. General Purpose

Providing a place for the exchange of knowledge and experience between practitioners, academics, and students all over Indonesia in the field of electronics and Electro-medical Technology.

B. Specific Goal

- Fostering and developing a research spirit and a competitive culture among Indonesian students.
- Fostering the emergence of creative and innovative ideas from young people in addressing health problems in Indonesia.
- Preparing Human Resources (HR), especially students, who are excellent and competent to help create a better quality of life for the community.
- Promoting Educational Institutions, especially the Department of Electro-Medical Technology, as an education-based research and technology institution that makes a real contribution.

IEIC 2026 Competition

1. Electromedical Innovation Competition (EIC)
   a. Biomedical Signal
   b. Life Support
   c. IT Healtcare
2. Innovation Fair (Medical Equipment Exhibition)



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PARTICIPATION

IEducational institutions that have participated in PENA from 2017 to 2025:

POLYTECHNIC

1. Poltekkes Kemenkes Jakarta II
2. Poltekkes Kemenkes Surabaya
3. Politeknik Mekatronika Sanata Dharma Yogyakarta Kemenkes
4. Politeknik Negeri Bandung
5. Politeknik Negeri Madiun
6. Politeknik Perkapalan Negeri Surabaya
7 . Politeknik Bina Trada Semarang

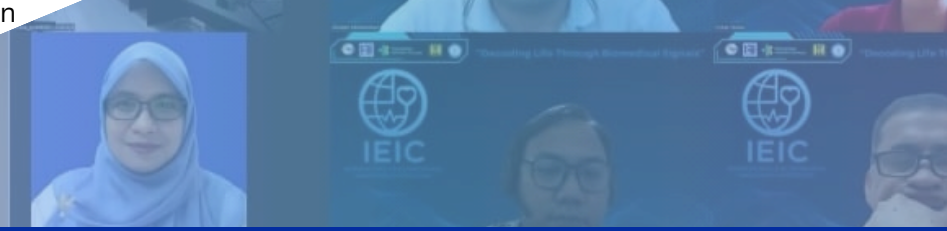
UNIVERSITY

1. President University
2. Universitas Ahmad Dahlan
3. Universitas Gadjah Mada
4. Universitas Jember
5. Universitas Kadiri
6. Universitas Langlangbuana Bandung
7. Universitas Mandala Waluya Kendari
8. Universitas Merdeka Malang
9. Universitas Mohammad Husni Thamrin.
10. Universitas Muhammadiyah Sidoarjo
11. Universitas Muhammadiyah Surabaya
12. Universitas Muhammadiyah Yogyakarta
13. Universitas Padjadjaran
14. Universitas PGRI Yogyakarta
15. Universitas Sanata Dharma
16. Universitas Sari Mutiara Indonesia
17. Universitas Surabaya
18. Universitas Trunojoyo Madura
19. Universitas Widya Husada Semarang
20. Universitas Muhammadiyah Purwokerto
21. Universitas Muhamadiyah Surakarta

22, Universitas Muhammadiyah Jakarta

INSTITUTE

1. Institut Teknologi Adhi Tama Surabaya (ITATS)
2. Institut Teknologi Kalimantan - Balikpapan
3. Institut Teknologi Telkom Surabaya.
4 Institut Tinggi Ilmu Kesehatan Semarang



About IEIC

INTERNATIONAL ELEKTROMEDICAL INNOVATION COMPETITION

IEIC is a development of the PENA activities that have been organized by HIMATEMI under the auspices of APTEMI.

IEIC is one of the very important activities to foster a spirit of innovation and competitiveness among students, which is the key to the successful development of health human resources, in this case, prospective electromedical personnel who are completing their studies.

These students are future electromedical professionals who are innovative and competitive, ready to face the challenges of changing times.

IEIC was initiated to unite the world of education, in this case electromedical technology campuses across Indonesia, with the working world (hospitals and private sector), stakeholders (Ministry of Health, local government), and global electromedical professionals.

The activities of IEIC include PENA / EIC and the Innovation Fair (Health Equipment Technology Exhibition).



S&K IEIC

INTERNATIONA ELECTROMEDICAL IINNOVATOIN COMPETITION

IEIC (International Electromedical Innovation Competition) is an international competition held online to foster innovation and collaboration in the field of electromedical technology. This event includes several competition categories: Electromedical Innovation Competition (EIC), Scientific Poster, Medical Device Innovation Videography, and Electromedical Innovation Fair, which serve as platforms for students, researchers, and young innovators to showcase their best ideas and works. With the theme "NEXT GENERATION HEALTHCARE THROUGH INTELLIGENT BIOSIGNAL, CONNECTED HEALTH, AND ADVANCED LIFE SUPPORT," IEIC aims to encourage the creation of creative and practical solutions in the development of healthcare technology for the global community.

Why Should Your Institution Participate?

1. By registering for IEIC with Rp. 1,500,000,- your institution is entitled to participate in all competitions (1 category).
2. We invite Electromedical students and alumni to visit the series of IEIC events at the Innovation Fair.
3. The Innovation Fair event was held at Hotel MG. Setos Semarang, at the same time as the symposium attended by biomedical professionals from all over Indonesia.
4. Build Networks & Collaborations by interacting with other institutions and industry players to open opportunities for cooperation and development both nationally and internationally.
5. Getting a lot of awards.

IEIC 2026 is the best investment to build your institution's reputation and future.

1.IEIC

INTERNATIONAL ELEKTROMEDICAL INNOVATION COMPETION

a.Registration

a.From September 28 to October 27, 2026.
b.Category:
1.Student

b.Requirements

- EIC 20256 participants are groups of students who are actively and officially registered to follow Diploma, STR, and Bachelor's education at public or private universities in Indonesia and abroad.
- Proposing students can come from different study programs or from the same study program depending on the field of activity and the topic that will be carried out.
- Each portfolio is required to be supervised by one lecturer.
- Participants are still students at the time of the grand final presentation.
- Make a payment through **Bank Syariah Indonesia** to account number **4565656444** under the name **DPD IKATEMI CENTRAL JAVA**, amount: EIC (Electromedical Innovation Competition) Registration Fee **Rp. 1,500,000** with the subject "Proof of Transfer Payment IEIC 2026 EIC Competition"
- Confirm the payment (with a photo of the payment receipt) via WhatsApp to the Committee, **Risma Selmunatri** (0822 3619 4426) and wait for the confirmation reply.
- A team consists of 3 (three) people.
- Every team must fill out the Google form listed in the registration flow on[https://bit.ly/pendaftaranIEIC2026.]
- Participants must send a raw video of the tool in mp4 format and combine it with the portfolio script in pdf form through the Google Form link.

- The portfolio script submitted is my own work and has never won a similar competition elsewhere.
- Each participant will get an award certificate (participant certificate, and winner).
- Every supervising lecturer gets a certificate.
- The portfolio softfile should be created in PDF format and the tool video should be in **mp4** format with the file name **IEIC 2026_EIC_Competition Category_University Name_Title (title with the first three words)**. Example: **IEIC 2026_EIC_IT HEALTH CARE_POLITEKNIK BINA TRADA SEMARANG_DESIGNING ELECTROCARDIOGRAPH**
- Abstracts must be submitted via the Google Form provided before the specified deadline, running from September 28 to October 27, 2026)
- Portfolio manuscripts and device videos (unedited) must be submitted via the Google Form before the specified deadline, running from November 1 to November 4, 2026.
- Following the abstract submission, the results of the abstract selection will be announced. Qualified participants will then proceed to the presentation stage, which will be evaluated online by the jury to select the top 9 teams (3 teams from each category).Innovation Fair 2026 Requirements

c. Portfolio Selection and Innovation Presentation

a. Presentation Assessment
b. Abstract Assessment
c.Assessment of medical device innovation video (without editing)
d.Determining the Top 9 to move on to the Battle for all categories
e.Judges from Academics, Practitioners, and the Private Sector
f. For those who don't make it to the next stage, their work will still be featured in the video
g.Assessment Criteria :

Stage I :Presentation and Assessment of Portfolios, Abstracts, and Innovation Tool videos without editing (Online)

1.Presentation Assessment

- Content

- Focused Content (The material presentation doesn’t go beyond content or topics about the tools and the theory behind the tools)
- Logic (The background of the problem that underlies the creation of the tool and the speed of problem-solving from the tool that has been made)
- Clear Message (The material structure is clear and can be easily understood by the audience)

- Speaking

- Clear (intonation and volume of voice are good and clear)
- Correct (Using proper and correct Indonesian)
- Fluent (Smoothness of delivering the presentation)

- Performance

- Gesture (Body language during a presentation)
- Expression (Body and facial expressions when delivering material)
- Equipment (Utilization of equipment for delivering material) supports during

Technical Rules for Online Presentations

1. The participants consist of 3 people and are required to use English.
2. Participants are required to be present 10 minutes before the Zoom starts.
3. Participants are required to wear neat and decent clothes, an almamater jacket, and closed shoes.
4. Participants bring the tools being competed with.
5. Each team is required to make a presentation according to the content of the written work that has been created in the form of a PowerPoint.
6. Presentation materials in PowerPoint format with the naming format: CATEGORY_TEAM NAME_INSTITUTION NAME. The flash drive must be brought on the day of the event.
7. The supervising lecturer is not allowed to help during the presentation.
8. The presentation order is based on the order that was set during the online technical meeting.
9. The total presentation time is a maximum of 30 minutes, with the details as follows:

- 20 minutes of presentation and tool demo.
- 10-minute Q&A session.

Judge 1: asks a question and each team answers the question for a maximum of 3 minutes

Judge 2: asks a question and each team answers the question for a maximum of 3 minutes

10. Things that need to be presented:

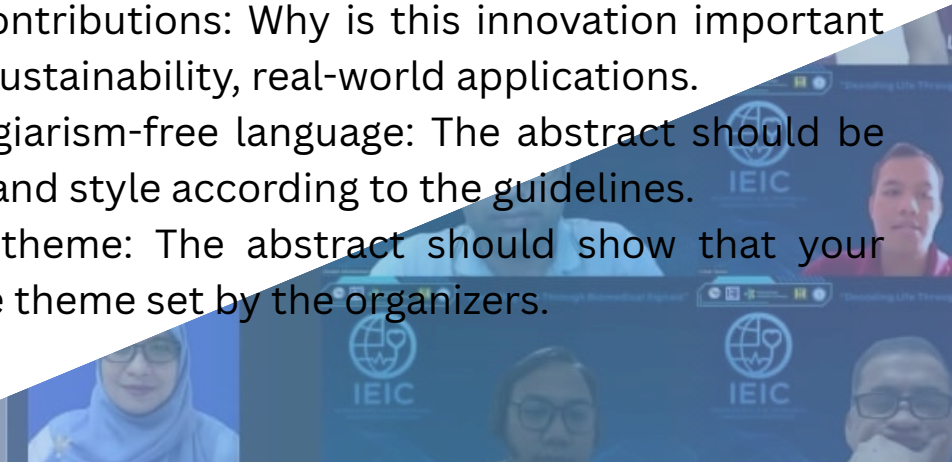
- Definition of a tool.
- How the tool works.
- Advantages of the tool.
- Benefits of the tool.
- The network system being used.
- Other things besides the above.

11. The judges' decisions and the committee's rules cannot be disputed

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12. Portfolio Assessment
- Novelty / originality (Is there any new creative element or significant development?)
- Benefits / relevance (An explanation of whether the latest tool/innovation is genuinely useful.)
- Scalability / sustainability (Is the tool easy to scale and adopt by the community, and is it sustainable.)
- Documentation and work evidence (The portfolio should be complete: prototype photos, trial data, user feedback, how neat and systematic the presentation is.)
- Technical ability and implementation (Does the innovation technically meet specifications, and is the way the tool works explained well.)
- Relevance to the Theme (Portfolio submitted in accordance with the competition theme)

13. Abstract
- A clear and informative title: A title that reflects the core of the innovation.
- Clear goals and problems: What problem do you want to solve? Why does it matter?
- A brief description of the method/innovation/prototype: How did you solve the problem?
- Main results or tangible benefits: What has been achieved (e.g., testing, efficiency, successful prototype)
- Implications or potential contributions: Why is this innovation important going forward? Scalability, sustainability, real-world applications.
- Standard, concise, and plagiarism-free language: The abstract should be well-written, using spelling and style according to the guidelines.
- Relevance to the contest theme: The abstract should show that your innovation is relevant to the theme set by the organizers.



14. Innovation tool video without editing
    - Duration according to the rules: minimum 1 minute, maximum 2 minutes.
    - Allowed to use English.
    - An engaging and clear opening: The title, team, institution, and tool/innovation are well introduced.
    - Demonstration of the tool/innovation: The tool or prototype is shown working in real life or a simulation of how it's used, its output, and advantages compared to existing ones.
    - Clear narrative: Explanation of the problem, the solution you made, how the tool works, the results obtained, who benefits.
    - Good visuals & audio: Clear images/prototypes, neat shots, sound is clear.

d. Battle (Online)

a. Held on November 7, 2026.
b. International Jury, Practitioners, Lecturers
c. Determining 1st, 2nd, 3rd Place per Category
d. Assessment Criteria:

Stage II: Equipment Assessment (Live via Zoom)

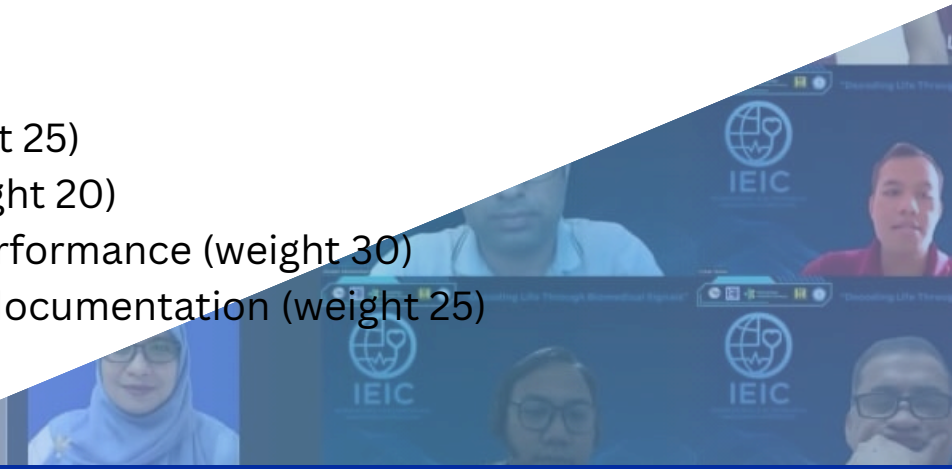
a. Standard Operating Procedure
b. Qualifications and Suitability
c. Design

Stage III: Battle Evaluation (Online)

a. Participant Insights
b. benefits of the tool
c. Instrument Show

e. Assessment Criteria:

1. Novelty of innovation (weight 25)
2. Relevance and benefits (weight 20)
3. Technical design and tool performance (weight 30)
4. Technical presentation and documentation (weight 25)



EIC Timeline

EIC Competition			
No	**Description**	**Date**	**Implementation**
1	IEIC Participant Registration & Abstract Submission	Sep 28 – Oct 27, 2026	Online
2	Abstract Selection Announcement	29 Okt 2026	Online
3	Technical Meeting 1	30 Okt 2026	Online
4	Portfolio, Device Innovation Video Submission &	1 s/d 4 Nov 2026	Online
5	IEIC Presentation	5 Nov s/d 6 Nov 2026	Online
6	Technical Meeting 2 & IEIC Battle	7 Nov 2026	Online
7	IEIC Competition Winner Announcement	13 Nov 2026	Online
8	Innovation Fair	14 Nov 2026	Offline (Hotel MG. Setos Semarang)

IECE 2026 Competition Registration Fee

Types of Competitions	Registration Fee
Biomedical Signal	1.500.000 / team
Life Support	1.500.000 / team
IT Healtcare	1.500.000 / team



Innovation Fair

(Health Equipment Technology Expo)

Innovation Fair

The Innovation Fair is the main stage to showcase innovative works from students and biomedical professionals across Indonesia. This event serves as a bridge between the world of education and the future of the healthcare industry, while also being a strategic platform for educational institutions to recruit top talent.

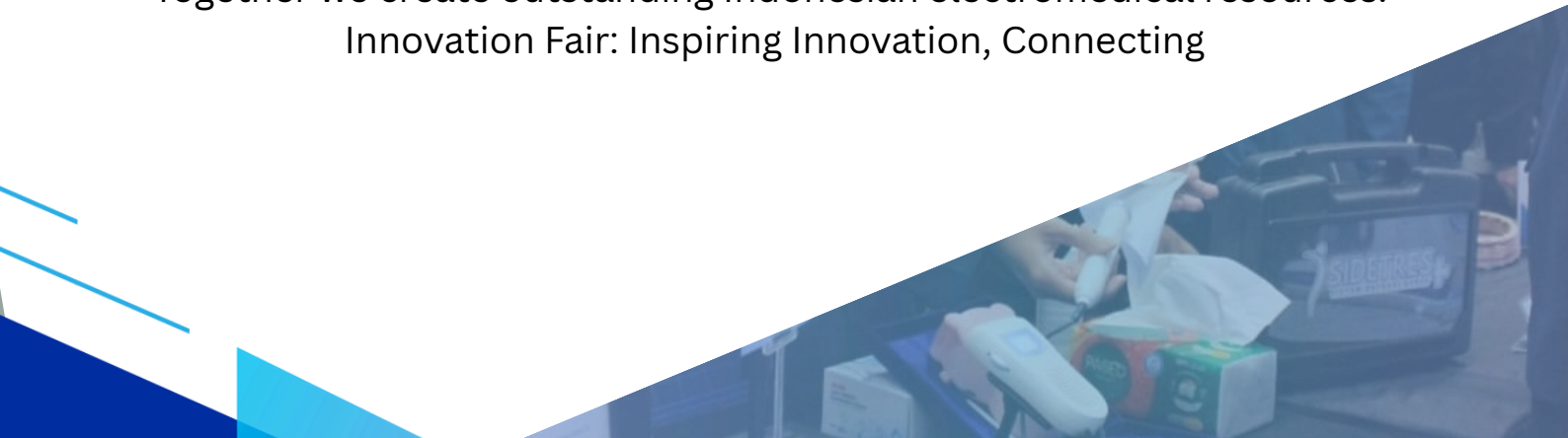
Why Should Your Institution Participate?

1. "Nurturing & Welcoming" Future Electromedical Talent: Become the main destination for electromedical students from various universities. Build connections, showcase your innovations, and meet potential health technology professionals directly at your booth.
2. Show Off Strengths & Innovation: Highlight your campus's advantages, facilities, and your students' best work. Prove your institution's leadership in the field of electromedical.
3. Build Networks & Collaborations: Interact with other institutions and industry players to open up opportunities for cooperation and development.

IEIC 2026 is the best investment to build your institution's reputation and future.

Register Your Institution Now!

Together we create outstanding Indonesian electromedical resources.
Innovation Fair: Inspiring Innovation, Connecting



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S&K Innovation Fair

1. Registration

a.From September 28 to October 27, 2026.

b.Category:

1.Student

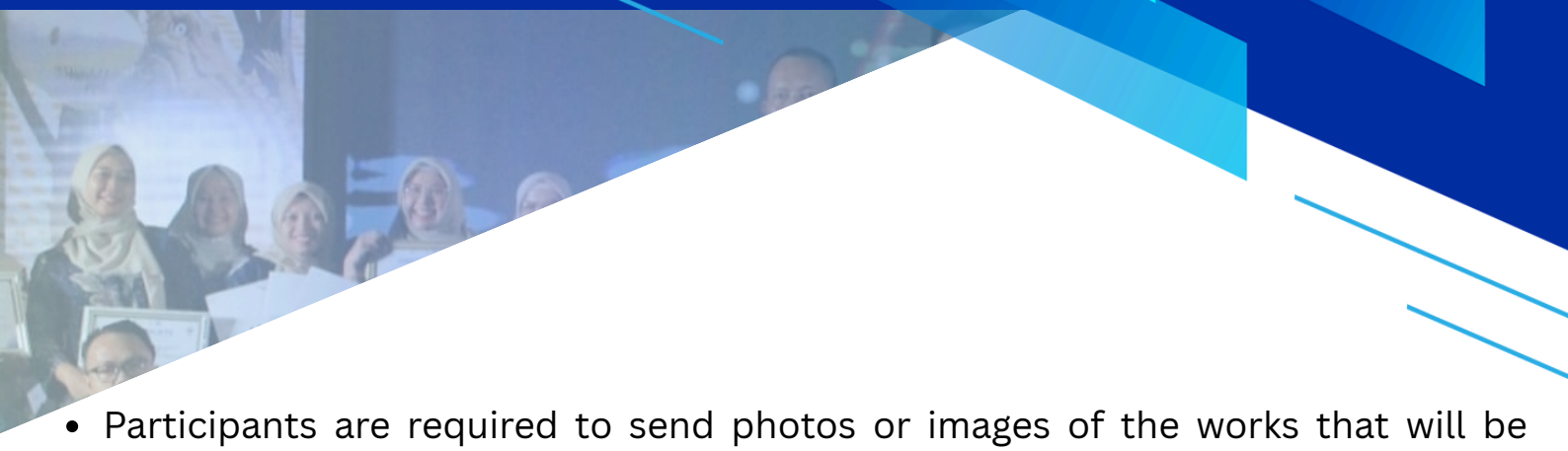
2.Terms & Conditions

Terms & Conditions for Innovation Fair Registration

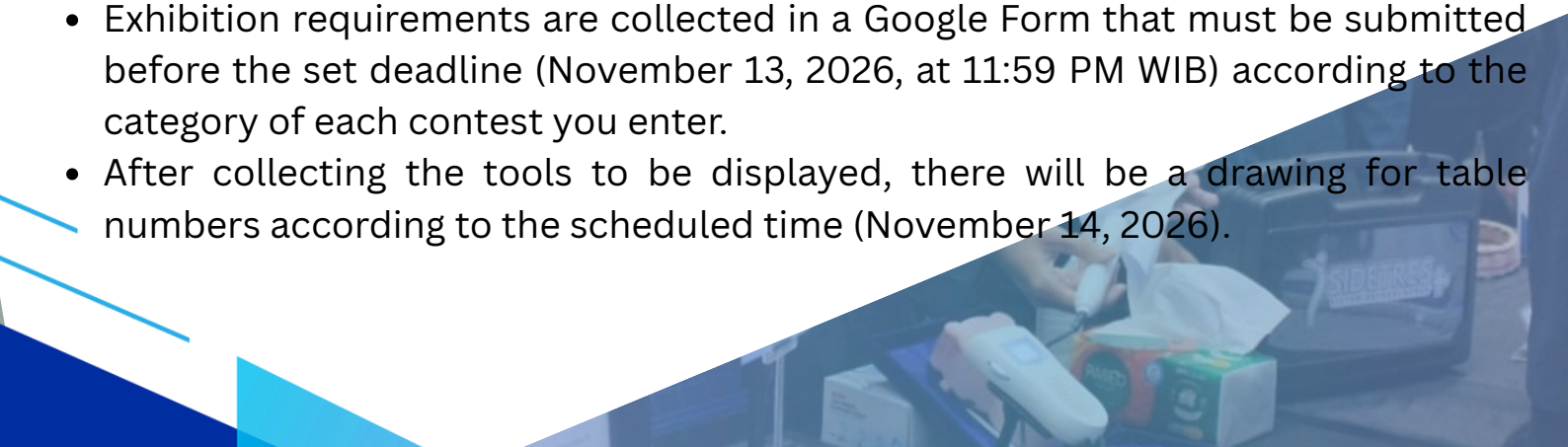
- Participants of IEIC 2026 are groups of students who are currently active and officially registered in Diploma, STR, and Bachelor's programs at public or private universities in Indonesia and abroad.
- Proposing students can come from different study programs or from the same one, depending on the field of activity and the topic that will be carried out.
- Participants are still students at the time of the Electromedical Innovation Fair.
- The decoration and arrangement of the booth are entirely the responsibility of each team occupying that booth.
- One booth/exhibition can have a maximum of 2-3 (two or three) people.
- Each booth (1 representative per booth) must fill out the Google form listed in the registration flow at https://tinyurl.com/innovationfair2026







- Participants are required to send photos or images of the works that will be exhibited (up to 3 works) and submit them via Google Form.
- Terms for Exhibited Works:
  a.The work can be in the form of a tool prototype, model, software/application, or research results in the field of health technology/electromedicine.
  b.The work has to be functional and can be demonstrated to visitors.
  c.The work doesn't contain elements of SARA, plagiarism, or violate someone else's intellectual property rights.
- The committee has the right to disqualify works that are considered not to meet the criteria or do not fit the event's theme.
- The work on display is my own creation and has never won a similar competition elsewhere.
- Each participant will get a certificate of appreciation (participant certificate).
- The digital poster file must be in PDF format with the following filename: IEIC 2026_ELECTROMEDICAL INOVATION FAIR_Name of Institution_Title (first three words of the title). Example: IEIC 2025_ELECTROMEDICAL INOVATION FAIR_POLITEKNIK BINA TRADA SEMARANG_RANCANG BANGUN ELECTROCARDIOGRAPH.
- Exhibition requirements are collected in a Google Form that must be submitted before the set deadline (November 13, 2026, at 11:59 PM WIB) according to the category of each contest you enter.
- After collecting the tools to be displayed, there will be a drawing for table numbers according to the scheduled time (November 14, 2026).





C. Registration Procedure:

- Registration is done online through the link: https://tinyurl.com/innovationfair2026
- Fill out the registration form completely.
- Attaching the following documents:
- Photocopy of the Person in Charge's ID
- Letter of Statement/Delegation from the Institution
- Registration Deadline: October 27, 2026
- Confirmation of registration will be sent via email within 3x24 hours.

D. etc.

- The committee provides limited electricity. Participants who need special power supply are required to inform the committee before the event or can bring their own power strips.
- Participants are fully responsible for the safety of their belongings and work during the event.
- The committee isn't responsible for any damage or loss that happens outside of the committee's negligence.
- The committee's decision is final and cannot be contested.



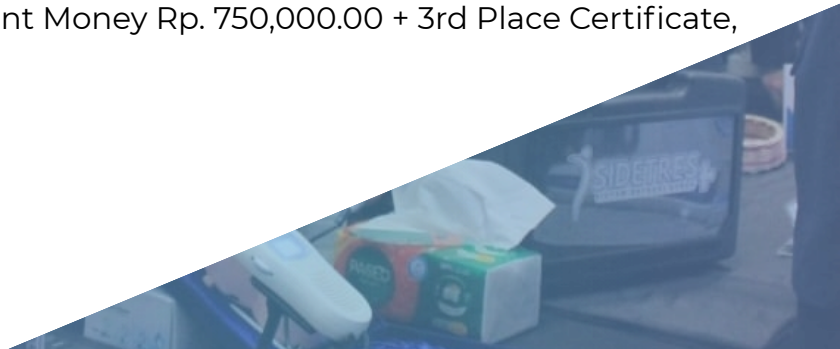


As for the Winner Prizes in the IEIC 2026 event, they are as follows:

a.IT Healthcare Category:
IT Healthcare Champion 1: Medal + Development Fund Rp. 1,500,000.00 + 1st Place Certificate, Promoter Certificate, Trophy.
2nd Place IT Healthcare: Medal + Development Fund of Rp. 1,000,000 + 2nd Place Certificate, Promoter Certificate, Trophy.
3rd Place IT Healthcare: Medal + Development Money Rp. 750,000.00 + 3rd Place Certificate, Promoter Certificate, Trophy.

b.Category: Biomedical Signals:
IT Healthcare Champion 1st Place: Medal + Development Fund Rp. 1,500,000 + 1st Place Certificate, Promoter Certificate, Trophy.IT Healthcare Champion 1st Place: Medal + Development Fund Rp. 1,500,000 + 1st Place Certificate, Promoter Certificate, Trophy.
2nd Place IT Healthcare: Medal + Training Money Rp. 1,000,000 + 2nd Place Certificate, Promoter Certificate, Trophy.
3rd Place IT Healthcare: Medal + Development Fund Rp. 750,000.00 + 3rd Place Certificate, Promoter Certificate, Trophy.

c.Life Support Category:
1st Place IT Healthcare: Medal + Development Fund Rp. 1,500,000.00 + 1st Place Certificate, Promoter Certificate, Trophy.
2nd Place IT Healthcare: Medal + Development Fund of Rp. 1,000,000 + 2nd Place Certificate, Promoter Certificate, Trophy.
3rd Place IT Healthcare: Medal + Development Money Rp. 750,000.00 + 3rd Place Certificate, Promoter Certificate, Trophy.





As for the Champion Prizes in the IEIC2026 event, they are as follows:

1.Overall Champion IEIC 2026 Trophy for the overall champion + Development Fund IDR 3,000,000.00 + Overall Champion Certificate + Institution Certificate.
2.Champion of the Best IEIC System 2026, Rotating Overall Champion Trophy IEIC + Development Fund IDR 1,000,000.00 + Overall Champion Certificate + Institution Certificate.
3.Champion of Best Design IEIC 2026, Overall Rotating Trophy IEIC + Development Fund IDR 1,000,000.00 + Overall Champion Certificate + Institution Certificate.

NOTE :All participants who have taken part in this competition are entitled to receive a certificate as participants. Those who make it to the top 9 will get a top 9 certificate.

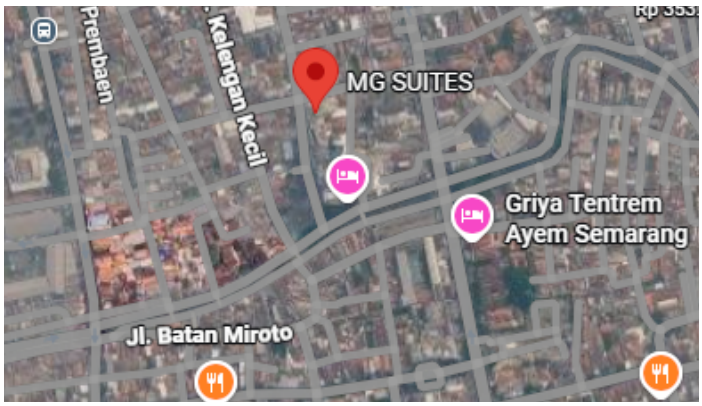


Innovation Fair Activity Timeline

Innovation Fair			
No	**Description**	**Date**	**Implementation**
1	Innovation Fair Registration	28 Sep s/d 27 Okt 2026	Online
2	TM (Drawing of Booth Numbers and Explanation of the Innovation Fair)	13 Nov 2026	Oflfine
3	Implementation of the Innovation Fair	14 Nov 2026	Offline (Hotel MJ. Sentosa Semarang)

Event Location for the Competition

Innovation Fair



Address: Jl. Petempen No. 294, Kembangsari, Central Semarang District, Semarang City, Central Java 50133 (connected to the SETOS / Semarang Town Square area).
(OFLINE)

Equipment Battle



Jl. Sambiroto Raya No.64 block D, Sambiroto, Tembalang District, Semarang City, Central Java 50276
(ONLINE)



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@Himatemi.Indonesia

Committee

Director :
Prof Hendro Yulianto, S.T, M.T
Atika Hendriyani

Person in Charge of PENA :
Coordinator : Agung satrio Nugroho
1. Adrian

Chairperson :
Elma Landak

Secretary :
1. Gita Rindang
2. Afyfa Eka Putri
3. Tirta Rizqi Azzahra

Treasurer :
1. Martinah
2. Risma Selmunatri

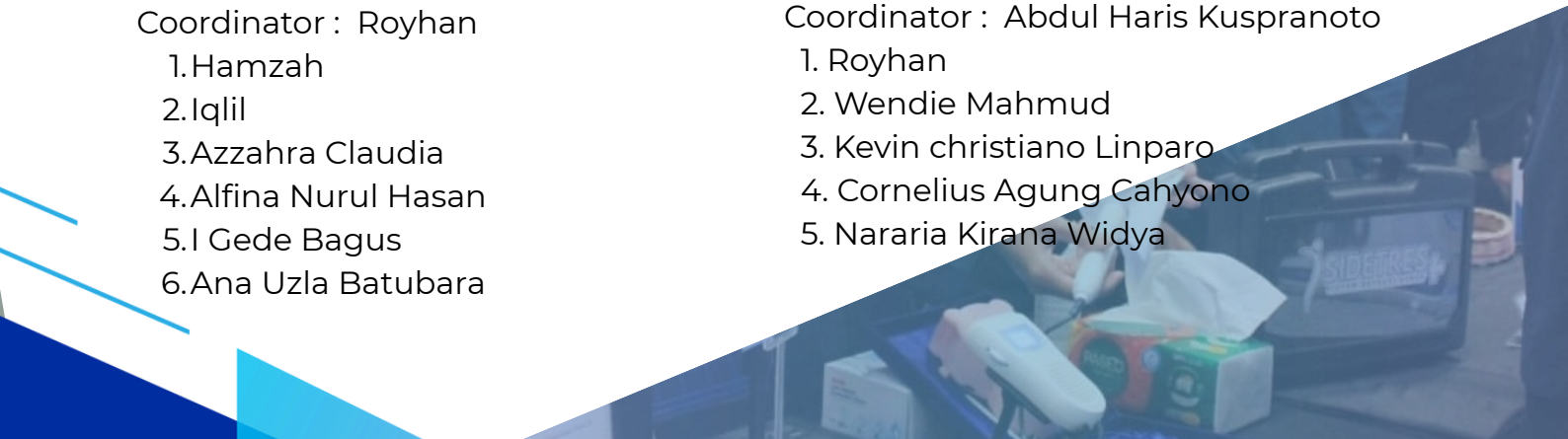
Event and Competition Coordinator :
Coordinator : Royhan
1. Hamzah
2. Iqlil
3. Azzahra Claudia
4. Alfina Nurul Hasan
5. I Gede Bagus
6. Ana Uzla Batubara

Publication and Relations Coordinator International :
Coordinator : Farid
1. M. Andrian Abdussalam
2. Muh. Risky Aditya
3. Fajar Syahidin
4. Aisha Heidina Rizka
5. Akmal Arya Yudistira
6. Rosita Handayani

Judge and Scientific Substantiation Coordinator :
Coordinator : Ipin Prasojo
1. Azril
2. Okta
3. Sinta Melati
4. Muhammad Fiqrih
5. M. Reynaldi Anugrah
6. Yones Nababan

Registration, Logistics, and IT Coordinator :
Coordinator : Abdul Haris Kuspranoto
1. Royhan
2. Wendie Mahmud
3. Kevin christiano Linparo
4. Cornelius Agung Cahyono
5. Nararia Kirana Widya





Contact Info

@pekanelektromediknasional

@Himatemi.Indonesia

(Adrian - 0823-1191-0184)

(Aliya - 0878-5360-1759)

Click or Scan this
QR code for the Website
and Registration!!

Registrasi

information



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Closing



This is how we have prepared this proposal, and we hope it can serve as a guide for carrying out this activity well. To make it happen, we hope for the cooperation and help of all parties involved, both morally and spiritually, for the success and smooth running of this activity. We thank everyone for their willingness and attention.



Best regards,
The IEIC 2026 Committee