

## Typhoon HIL Best Paper Award – India 2026

### Announcement (Version 1.2)

In this Typhoon HIL Best Paper Award – India 2026 Announcement (hereinafter: the “**Announcement**”), Typhoon HIL GmbH (hereinafter: “**Typhoon HIL**”), announces and sets out the applicable terms of the Typhoon HIL Best Paper Award – India<sup>1</sup> 2026 competition (hereinafter: the “**Competition**”):

#### Overview

The Typhoon HIL Best Paper Award recognizes outstanding applied research that advances the digital transformation in power electronics and power systems. The award highlights innovations rigorously validated using real-time simulation, Hardware-in-the-Loop (HIL), and digital twin technologies, celebrating solutions that deliver measurable, real-world impact. Emphasis is given to research that leverages model-based engineering approaches and automated testing to accelerate the development, validation, and deployment of sustainable digital power technologies.

Following the success of the Europe, Latin America, and United States editions launched previously, the Typhoon HIL Best Paper Award – India 2026 edition aims to spotlight high-impact, transformative contributions with the potential to bring proven ideas from the lab to industrial applications, while engineering and promoting environmentally sustainable power technologies that scale.

#### Scope of Eligible Work

Eligible papers should present applied research that advances digital power applications, including power electronics and power systems. Submissions are expected to demonstrate clear relevance and applicability to real-world systems, preferably leveraging model-based engineering, real-time simulation, HIL, or digital twin technologies.

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<sup>1</sup> India means the Republic of India.

## Purpose and Objectives

- Recognize and reward exceptional research papers that substantially advance power electronics and power systems through the use of real-time simulation, HIL, and digital twin technologies.
- Promote applied research that goes beyond theory – focusing on control and software validated and tested under realistic and extreme conditions with the potential to drive grid digitalization.
- Champion the use of test automation and HIL platforms as essential tools for verifying and validating real-world operational technologies performance.
- Foster collaboration between academic institutions, professional societies, and industry experts to elevate standards and maximize practical global impact.
- Amplify outstanding research through Typhoon HIL's communication channels, ensuring global visibility and recognition for authors and institutions.

## Award Scope and Eligibility Criteria

To be eligible for the Competition and award:

- papers must have been previously published in journals, transactions, or conference proceedings;
- papers must be written in English;
- at least one of the authors must have been affiliated with an academic institution or company located in India at the time of the paper's authorship, as officially indicated in the affiliation(s) listed in the paper and/or publication. Changes in an author's affiliation after the paper was published will not affect eligibility;
- papers must have been published, accepted for publication, or presented at a conference on or after August 12, 2021, and no later than the submission deadline for this Award;
- research must demonstrate clear applicability, particularly in the context of digitalization of the power grid, electric mobility, embedded software, control algorithms, and system validation;
- priority is given to research that rigorously tests ideas using Hardware-in-the-Loop (HIL) platforms (including Typhoon HIL, third-party, or custom-built solutions), evaluated on equal technical merit; and

- the same author or author group is welcome to submit up to five (5) eligible papers. However, to ensure broader recognition within the community, each individual author or author group will be eligible to receive only one award. In the event that multiple submissions by the same author or author group are preliminary selected for an award, only the highest-ranked paper will be eventually considered for an award.

## Application Process

Authors are invited to submit their application [via the official submission page](#). By submitting an application, participants agree to be bound by this Announcement and terms and conditions of the Competition set forth herein. Each submission must include:

- a PDF copy of the author version of the paper; and
- a completed application form (available at the official submission page).

## Evaluation Process

To ensure fairness and impartiality, the papers will be evaluated by a technically qualified committee (hereinafter: the “**Evaluation Committee**”), based on the following predefined criteria:

- Technical contribution: applied research with demonstrated relevance to real-world systems and sustainability goals. Score from 1 to 5.
- Scope: focus on the development of software-defined solutions for digital power. Score from 1 to 5.
- Quality of verification and validation strategies: use of model-based engineering, HIL platforms, and test automation for rigorous verification and validation of real-world performance according to relevant performance metrics. Score from 1 to 5.
- Citation rate impact: Assesses the academic impact of the paper by calculating the number of Google Scholar citations divided by the number of years since publication:
  - A) citation rate greater or equal to 20 – 5 points;
  - B) citation rate between 15 and 19 – 4 points;
  - C) citation rate between 10 and 14 – 3 points;
  - D) citation rate between 05 and 09 – 2 points;
  - E) citation rate between 01 and 04 – 1 point; and
  - F) citation rate equal to zero – 0 points.

- **Publication source impact:** Assesses the visibility and academic relevance of the publication source. Points are assigned based on the journal's or conference's indexing and quartile ranking in Scopus or SCImago Journal Rank (SJR). The highest quartile between Scopus and SJR will be considered:
  - A) journal or transaction indexed in Scopus/SJR, quartile Q1 – 5 points;
  - B) journal or transaction indexed in Scopus/SJR, quartile Q2 – 4 points;
  - C) journal or transaction indexed in Scopus/SJR, quartile Q3 or Q4 – 3 points;
  - D) conference papers indexed in Scopus/SJR – 2 points; and
  - E) other journals, transactions, or conference papers – 1 point.

In case of a tie, the Evaluation Committee reserves the right to consider additional indicators of impact, such as the number of citations (e.g., as indexed by Scopus), to help determine the final ranking.

The Evaluation Committee will consist of experts from academia and/or industry. Each paper will be reviewed by two or more Evaluation Committee members, excluding any member who may have co-authored the paper under evaluation. The final score will be based on the average of individual evaluations. Whenever possible, we will avoid matching Evaluation Committee members from the same institution as any of the authors of the paper, ensuring an impartial review process.

Purchase, ownership, or use of a Typhoon HIL product is neither required for participation in the Competition nor taken into account in selecting winners.

## Timeline

The Typhoon HIL Best Paper Award – India 2026 ceremony will be hosted during the Typhoon HIL TechDay India, scheduled to be held in Bangalore on December 8<sup>th</sup>, 2026 (exact timing and venue of the ceremony will be published in due course). The following is a summary overview of relevant Typhoon HIL Best Paper Award – India 2026 milestones:

- official launch of the award: August 14<sup>th</sup>;
- submissions: from August 14<sup>th</sup> to September 20<sup>th</sup>;
- evaluation: from October 5<sup>th</sup> to November 1<sup>st</sup>;
- award results announcement: by November 20<sup>th</sup>; and
- award ceremony at Typhoon HIL TechDay India: December 8<sup>th</sup>.

## Awards

The Evaluation Committee will evaluate submissions in accordance with this Announcement and select the Top 5 Papers. These will be divided into two categories: the Best Paper Awards (i.e., comprising of the top 3 papers) and the Outstanding Paper Selections (i.e., comprising of the



remaining 2 papers), recognizing excellence and impact across a broader range of contributions. The following are the prizes to be awarded for each category, as well as collectively for all Top 5 Papers:

For Best Paper Awards:

- one HIL404 real-time simulator for each awarded paper; and
- fully integrated software toolchain with all toolboxes unlocked and unlimited number of installations for the period of two (2) years accompanying each of the awarded devices.<sup>2</sup>

For Outstanding Paper Selection:

- one HIL101 real-time simulator for each awarded paper; and
- fully integrated software toolchain with all toolboxes unlocked and unlimited number of installations for the period of two (2) years accompanying each of the awarded devices.<sup>3</sup>

Each of the Top 5 Papers:

- one (1) full Typhoon HIL TechDay India registration for one (1) of the authors of each awarded paper; and
- Typhoon HIL Best Paper Award – India 2026 certificate (i.e., issued collectively for the authors of each awarded paper).

The real-time simulators will be awarded to an academic institution<sup>4</sup> located in India, as designated by the authors of the awarded paper. The authors shall inform Typhoon HIL in writing of their selected recipient institution<sup>5</sup>.

The approximate retail value of each HIL404 real-time simulator (together with its accompanying academic two-year software license) is INR 30 lakh, and the approximate retail value of each HIL101 real-time simulator (together with its accompanying two-year software toolchain) is INR

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<sup>2</sup> Following the expiration of the initial two-year period, certain additional charges may apply.

<sup>3</sup> Please see the relevant disclaimer in Footnote No. 2 above, which applies in this case as well.

<sup>4</sup> Academic institution means any accredited or officially recognized higher education institution (including universities and colleges), and any laboratory or research institute that is predominantly devoted to academic teaching, scholarly research, or other non-commercial academic purposes, which academic institution holds a valid registration certificate issued under the Foreign Contribution (Regulation) Act, 2010, of India

<sup>5</sup> Whenever applicable, the selected academic institution should correspond to an academic institution listed among the affiliations of the authors in the awarded paper. In cases where none of the authors had an academic affiliation with an institution located in India at the time of the paper's authorship, as officially indicated in the publication, the authors may designate another academic institution located in India to receive the relevant real-time simulator.



10 lakh. These are indicative prices provided on an Ex Works (EXW) basis, as defined under the applicable Incoterms rules, and are provided for information purposes only.

### **Post-Award Opportunities**

In addition to the prizes and recognition, awardees may be invited to engage in the following exclusive follow-up opportunities:

- Present at Key Events: Winners may be offered speaker slots at future Typhoon HIL or partner-hosted conferences, webinars, and symposia.
- Collaborative Publications: Opportunity to co-author a white paper or application note in partnership with Typhoon HIL, transforming the awarded research into a high-visibility resource for the industry.
- Mentorship Roles: Selected awardees may be invited to contribute as reviewers or advisors in future editions of the award or other challenges.
- Research Spotlight: Featured as part of the Academic or Industry Spotlight Series promoted through Typhoon HIL's channels.

### **Additional Terms and Conditions of the Competition**

#### **Eligibility**

Participation in the Competition is open to individuals who:

- are 18 years of age or older at the time of submission;
- are authors or co-authors of eligible papers as defined in this Announcement; and
- comply with all applicable laws and regulations.

No purchase is necessary to participate in the Competition.

The Competition is void where prohibited or restricted by law.

#### **Nature of Competition**

The Competition is a skill-based contest. Winners are selected based solely on the evaluation criteria set forth in this Announcement, including technical merit, applicability, and impact. No element of chance is involved in determining the outcome.

#### **Submission and Participation**

By submitting an application, each participant:

- represents and warrants that:



- the submitted work is original or properly authorized;
- the submission does not infringe any third-party rights; and
- agrees to be bound by this Announcement and the decisions of Typhoon HIL and the Evaluation Committee.

By clicking the applicable confirmation boxes on the submission form, each participant expressly confirms that: (i) the participant has carefully read this Announcement and terms and conditions set out herein in their entirety and agrees to be bound by them; (ii) the participant accepts the arbitration requirement set forth herein; (iii) the participant accepts and agrees to the class action waiver set forth herein; and (iv) the participant consents to the use of their name, affiliation, and likeness as described in the Intellectual Property and Publicity section herein.

Typhoon HIL reserves the right to verify eligibility and to disqualify any submission that does not comply with this Announcement.

#### *Evaluation Process and Decisions*

All submissions will be evaluated in accordance with the published evaluation criteria and scoring methodology described in this Announcement.

The Evaluation Committee will act independently, impartially, and in good faith. Each paper will be assessed by qualified reviewers, and final scores will be determined in accordance with the terms and conditions set out in this Announcement. All decisions are final and binding.

#### *Prizes*

Prizes will be awarded as described in this Announcement and:

- are non-transferable;
- may not be exchanged for cash or substituted, except at Typhoon HIL's discretion in accordance with this Announcement; and
- may be subject to availability or logistical constraints.

#### *Taxes, Customs, and Other Similar Requirements*

Recipients of prizes are solely responsible for all applicable taxes, customs and other duties, and reporting obligations in their respective jurisdictions. Prior to delivery of any prize, Typhoon HIL may request from each prize-recipient documentation and/or fulfilment of procedural and substantive requirements that may be applicable in relation to tax, customs, and similar



requirements arising in India or another country in connection with the relevant prize award and delivery. In case of a refusal or failure of the prize recipient to provide the relevant assistance and/or undertake the requested actions, Typhoon HIL reserves the right to cancel the relevant prize award.

### *Intellectual Property and Publicity*

By participating in the Competition, each participant grants Typhoon HIL a non-exclusive, worldwide, royalty-free license to:

- reference the submitted work; and
- use the participant's name, affiliation, and likeness.

for purposes of:

- promotion of the Competition;
- marketing and communication activities; and
- showcasing selected research through Typhoon HIL channels.

Participants retain ownership of their underlying intellectual property.

The grant of license described in this section is conditioned upon the participant's express written consent, which shall be provided by means of a separate click-box confirmation on the submission form stating: "I consent to Typhoon HIL's use of my name, institutional affiliation, and likeness for the purposes described in the Intellectual Property and Publicity section of this Announcement."

### *Data Protection*

Typhoon HIL collects and processes personal data submitted as part of the application process (including names, institutional affiliations, and contact details) solely for the purposes of administering the Competition, evaluating submissions, notifying winners, delivering prizes, and, where consent has been provided, promotional and communication activities as described in the Intellectual Property and Publicity section above. Personal data will not be shared with third parties except to the extent necessary for Competition administration (e.g., Evaluation Committee members) or as required by law, and will be retained only for as long as necessary to fulfill these purposes. Typhoon HIL implements reasonable security measures to protect personal data against unauthorized access, disclosure, or loss, in accordance with the Governing Law (as defined further below).



Participants may contact Typhoon HIL at [privacy@typhoon-hil.com](mailto:privacy@typhoon-hil.com) to request access to, correction of, or deletion of their personal data, subject to applicable legal limitations. Typhoon HIL will endeavor to respond to each such request as soon as reasonably practicable but in any event not later than 90 days.

By submitting an application, each participant acknowledges that they have read and understood this data protection statement and consents to the collection and processing of their personal data as described herein.

Personal data collected during the Competition shall be retained for a period of approximately 12 months.

#### Limitation of Liability

To the maximum extent permitted by applicable law, Typhoon HIL shall not be liable for:

- any indirect, incidental, or consequential damages;
- any loss of data, opportunity, or reputation; or
- any technical, network, or submission-related failures.

Participation in the Competition is at the participant's own risk.

#### Governing Law and Dispute Resolution

This Announcement shall be governed by the laws of Switzerland, without regard to conflict of laws principles (hereinafter: the “**Governing Law**”). This Announcement and the Governing Law apply uniformly to all participants regardless of location, subject only to any mandatory provisions of applicable local law.

All disputes arising out of or in connection with the Competition shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce by one arbitrator appointed in accordance with the said Rules. No award or procedural order made in the arbitration shall be published. The seat of arbitration shall be Zurich, Switzerland. The language of the arbitration shall be English.

Judgment on the award may be entered in any court of competent jurisdiction.

The arbitration proceedings, including all submissions, evidence, and the arbitral award shall be confidential, except to the extent disclosure is required by law, for enforcement of the award, or to protect a party's legal rights. Typhoon HIL and each participant do not waive their rights to seek interim or conservatory measures. Notwithstanding the foregoing agreement to arbitrate,



Typhoon HIL and/or each participant may at any time seek interim or provisional relief (including a temporary restraining order or preliminary injunction) from a competent court, before or after the constitution of the arbitral tribunal, to protect their rights, and any such request shall not be deemed incompatible with the agreement to arbitrate or a waiver of the right to arbitrate on the merits.

EACH PARTICIPANT AGREES THAT ANY DISPUTE, CLAIM, OR CONTROVERSY ARISING OUT OF OR RELATING TO THIS COMPETITION, THE TERMS AND CONDITIONS AND/OR ANY OTHER AGREEMENT RELATED THERETO, SHALL BE BROUGHT SOLELY IN AN INDIVIDUAL CAPACITY, AND NOT AS A PLAINTIFF OR CLASS MEMBER IN ANY PURPORTED CLASS, COLLECTIVE, OR REPRESENTATIVE PROCEEDING. EACH PARTICIPANT AS WELL AS TYPHOON HIL EXPRESSLY WAIVE ANY RIGHT TO MAINTAIN A CLASS ACTION, COLLECTIVE ACTION, OR OTHER REPRESENTATIVE PROCEEDING IN ANY FORUM. IF THIS CLASS ACTION WAIVER IS FOUND UNENFORCEABLE WITH RESPECT TO ANY CLAIM, THAT CLAIM SHALL BE SEVERED FROM THE ARBITRATION AND PROCEED IN A COURT OF COMPETENT JURISDICTION, WHILE ALL REMAINING CLAIMS PROCEED IN ARBITRATION ON AN INDIVIDUAL BASIS. BY PARTICIPATING IN THE COMPETITION, EACH PARTICIPANT EXPRESSLY CONSENTS TO THIS CLASS ACTION WAIVER.

#### General Provisions

- This Announcement and the terms and conditions contained herein constitute the entire agreement between participants and Typhoon HIL regarding the Competition.
- If any provision is held invalid or unenforceable, the remaining provisions shall remain in full force and effect.
- Failure to enforce any provision shall not constitute a waiver of rights.
- Participation in the Competition does not entitle any participant to any rights or benefits beyond those expressly set forth in these Terms and Conditions.
- Typhoon HIL shall administer the Competition in good faith and in accordance with the principles and criteria set forth herein.
- To the maximum extent permitted by applicable law, Typhoon HIL:
  - makes no representation or warranty regarding:
    - the outcome of the Competition; or

- the selection of winners; and
  - o retains discretion in the administration of the Competition, provided that such discretion is exercised reasonably and consistently with this Announcement.
- Decisions of Typhoon HIL are final and binding and it reserves the right to adjust, modify, or substitute any aspect of the Competition, including prizes, at its sole discretion. Any potential prize substitution shall be made for a prize of equal or greater value and substantially equivalent functionality, save where impossible for legal/supply/logistical reasons.
- Due to the volume of submissions, individual feedback may not be provided to possible inquires.
- For each awarded real-time simulator, ex-works delivery terms shall apply, i.e., all costs and risks, including transport, insurance, customs clearance (if applicable), and delivery to the final destination are the responsibility of the entity receiving the awarded equipment, unless Typhoon HIL decides, in its sole discretion, to bear some of these costs in part or in full by, *inter alia*, including certain third parties (such as authorized distributors) in the process of delivery of awarded equipment into India.
- Typhoon HIL reserves the right to cancel, modify, or suspend the Competition and/or the terms and conditions thereof at any time and for any reason, when this is reasonably necessary for legal and/or regulatory, force majeure, operational, insufficient entry or integrity reasons, with notice where practicable.
- Typhoon HIL reserves the right to limit the number of papers to be evaluated to the first 100 complete applications received.
- No correspondence will be entered into regarding the outcome or decisions made in connection with the Competition.
- Where a prize recipient institution is subject to government, public-sector, or institutional conduct restrictions concerning acceptance of gifts, benefits, or awards, the award is subject to the recipient obtaining any approvals required under applicable rules.
- In case a prize recipient academic institution designated by the authors whose paper was awarded one of the Competition awards refuses or cannot lawfully receive the relevant prize or a part thereof, Typhoon HIL will invite the relevant authors to select another academic institution to be awarded the relevant prize.

- Typhoon HIL's obligations with respect to any product, device, or equipment used, awarded, or generated in connection with the Competition end at the conclusion of the Competition and upon delivery of the awarded equipment in accordance with the applicable delivery terms. Typhoon HIL expressly assumes no responsibility for the use of any awarded product or device in any location or forum after delivery, and shall have no liability whatsoever arising from or related to such post-delivery use.
- By participating, applicants/participants acknowledge that they have read, understood, and agree to be bound by the terms set out in this Announcement, as well as waive any claims against Typhoon HIL in relation to their participation or any result thereof.

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