

P2668

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Type of Project: New IEEE Standard

PAR Request Date: 25-Jan-2018

PAR Approval Date: 08-Mar-2018

PAR Expiration Date: 31-Dec-2022

Status: PAR for a New IEEE Standard

1.1 Project Number: P2668

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Title: Standard for Maturity Index of Internet-of-things: Evaluation, Grading and Ranking

3.1 Working Group: Internet-of-things Index Working Group (IES/IES/IDex)

Contact Information for Working Group Chair

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3.2 Sponsoring Society and Committee: IEEE Industrial Electronics Society/Industrial Electronics Society Standards Committee (IES/IES)

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4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 12/2019

4.3 Projected Completion Date for Submittal to RevCom

Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 08/2020

5.1 Approximate number of people expected to be actively involved in the development of this project: 20

5.2 Scope: The scope of this standard is to measure the maturity of objects in Internet-of-Things (IoT) environment, namely IoT objects. IoT objects shall represent things or devices or the entire system. The standard defines the mechanism and specifications for evaluation, grading and ranking of the performance of IoT objects by using indicator values, referred as IoT Index (IDex). IDex shall classify the objects into multiple levels of performance and give a quantitative representation and indication of the performance of objects. IDex shall manifest guidance on blending of IoT objects to evolve into better performance.

5.3 Is the completion of this standard dependent upon the completion of another standard: No

5.4 Purpose: This standard provides an objective, unique, transparent, and trustworthy measurement and indication of IoT objects pertinent to their performances. IDex consists of five levels and grades and classifies IoT objects, and provides a quantitative and trustworthy value to users and consumers who may then make decision on the usage, adoption and promotion of IoT objects. The establishment of IDex shall proliferate a rapid, positive and mature progress of IoT industry.

5.5 Need for the Project: Internet-of-things (IoT) is a globally adopted concept and development trend in the smart city development. The number of IoT objects is forecast to proliferate exponentially. It is expected that the number of IoT objects will exceed 20 billion by 2020. Standardization to quantify the IoT maturity of objects will be a vital step to thrive the IoT market. Hitherto, up to this point, there is no standard to grade and rank IoT objects. This standard proposes a universal standard, namely IoT Index (IDex), for the evaluation of performance as well as grading and ranking of IoT objects. IDex will provide key indication on major performance of IoT objects. Moreover,

IDex will aid consumers, companies and entities to compare, adopt, develop and select IoT products efficiently, thus proliferating efficiency and render contributions on reduction in reconciliation costs, efficiency of decision making, progress of international integration, and market integrity. Attention is drawn to the fact that IDex facilitates an international integration, blending and innovation to evolve into better performance through its open platform for IoT objects.

5.6 Stakeholders for the Standard: Manufacturers and users of IoT products, personal computers, enterprise networking devices, consumer electronic devices, home networking equipment, producers of industrial sensors, mobile devices, cellular operators, equipment manufacturers, vehicle manufacturers, private/public sectors, enterprise infrastructure providers and wireless operators.

Intellectual Property

6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No

6.1.b. Is the Sponsor aware of possible registration activity related to this project?: No

7.1 Are there other standards or projects with a similar scope?: No

7.2 Joint Development

Is it the intent to develop this document jointly with another organization?: No

8.1 Additional Explanatory Notes: