INTERNATIONAL TELECOMMUNICATION UNION
TELECOMMUNICATION STANDARDIZATION BUREAU

Geneva, 14 July 2021

Ref:	**TSB Circular 333**	**To:**
		- Administrations of Member States of the Union;
		- ITU-T Sector Members;
Tel:	+41 22 730 5860	- ITU-T Associates;
Fax:	+41 22 730 5853	- ITU Academia
E-mail:	ai5gchallenge@itu.int	**Copy to:**

Copy to:
- The Chairmen and Vice-Chairmen of Study Groups and Focus Groups;
- The Director of the Telecommunication Development Bureau;
- The Director of the Radiocommunication Bureau

Subject: Call for participation to students and professionals to compete in the 2021 edition of the ITU Artificial Intelligence/Machine Learning (AI/ML) in 5G Challenge

Dear Sir/Madam,

1   It is my pleasure to invite you to participate in the 2021 edition of the ITU Artificial Intelligence/Machine Learning in 5G Challenge, a competition to run until the end of the year.

2   The ITU AI/ML in 5G Challenge rallies like-minded students and professionals from around the globe to solve real-world problems in communication networks by applying artificial intelligence (AI) and machine learning (ML). The Challenge enables participants to connect with new partners in industry and academia, apply the latest tools on new data resources, and map solutions to ITU standards. The solutions can be accessed in several repositories on the Challenge GitHub.

3   In the first edition of the Challenge in 2020, sponsored by UAE Telecommunications Regulatory Authority (Gold Sponsor), Cisco and ZTE (Bronze Sponsors), over 1300 students and professionals from 62 countries competed for global recognition and prizes. The best peer-reviewed papers resulting from the Challenge are featured in a special issue of the ITU Journal "Future and evolving technologies" in July 2021 (https://www.itu.int/en/journal/j-fet/Pages/default.aspx). ITU NEWS Magazine published a 91-page special issue on the Challenge in six languages in December 2020 (https://www.itu.int/en/itunews).

4   The 2021 edition of the Challenge continues to build on ITU's standardization efforts in AI/ML by adopting ITU's AI/ML toolkit in 5G networks in the development of end-to-end solutions that will realize the full capabilities of AI/ML models in communication networks. Teams will be required to enable, create, train and deploy ML models such that participants will acquire hands-on experience in AI/ML in areas relevant to 5G.

5   We are grateful to this year's sponsor of the Challenge, Xilinx, and the hosts of this year's 16 exciting problem statements: Barcelona Neural Networking Center, National Institute of Standards and Technology (NIST), Universitat Pompeu Fabra, China Unicom, North Carolina State University (NCSU), Universidade Federal do Pará (UFPA), Xilinx, The University of Alabama, Saint Petersburg State University of Telecommunications (SPbSUT), ZTE Corporation, Turkcell, China Mobile, ITU Focus Group on Autonomous Networks (FG-AN), RISING (Japan) and KDDI Corporation. We also thank AIIA (Artificial Intelligence Industry Alliance) of China for providing the frontend software for the administration of the Challenge.

6   The problem statements that participants will be working are divided into three technical tracks:
-    Network-track
-    Proof of Concept (PoC)-track
-    Verticals-track

7   Among the prizes are 5'000 CHF for 1st prize, 3'000 CHF for 2nd prize, 2'000 CHF for 3rd prize, internship(s) and a guest researcher position, and various certificates.

8´   Participation in the Challenge is free of charge and open. Interested individuals can register and participate in the Challenge https://aiforgood.itu.int/ai-ml-in-5g-challenge/. Registration is open until 31 August 2021. Solutions need to be submitted by end of September / beginning of October.

9   Webinars throughout the year accompany the Challenge, with the final stop at the Grand Challenge Finale & Prize Ceremony in December 2021 when AI/ML solutions are pitched live, and winners are announced.

10   We invite sponsorship. Sponsoring this Challenge is an excellent opportunity to position your country, organization or company as a global leader in AI/ML for 5G. Please send inquiries to ai5gchallenge@itu.int.

11   Information relating to the Challenge, including a link to the form signalling your interest, is available at https://aiforgood.itu.int/ai-ml-in-5g-challenge/. Please check the Challenge's homepage periodically for new updates.

12   For additional information and questions relating to the Challenge, please contact: ai5gchallenge@itu.int.

Yours faithfully,

(signed)

Chaesub Lee
Director of the Telecommunication
Standardization Bureau