



## FORM 4: NEW WORK ITEM PROPOSAL (NP)

<b>Circulation date</b> 2021-11-11	<b>Reference number:</b> Enter Number (to be given by ISO Central Secretariat)
<b>Closing date for voting</b> 2021-02-03.	<b>ISO/TC</b> Enter Number <b>/SC</b> Enter Number
<b>Proposer</b> <input checked="" type="checkbox"/> ISO member body: SAC <input type="checkbox"/> Committee, liaison or other <sup>1</sup> : Click here to enter text.	<input checked="" type="checkbox"/> Proposal for a new PC  <b>N</b> Click here to enter text.
<b>Secretariat</b> Click here to enter text.	

A proposal for a new work item within the scope of an existing committee shall be submitted to the secretariat of that committee.

<sup>1</sup> The proposer of a new work item may be a member body of ISO, the secretariat itself, another technical committee or subcommittee, an organization in liaison, the Technical Management Board or one of the advisory groups, or the Secretary-General. See ISO/IEC Directives Part 1, [Clause 2.3.2](#).

The proposer(s) of the new work item proposal shall:

- make every effort to provide a first working draft for discussion, or at least an outline of a working draft;
- nominate a project leader;
- discuss the proposal with the committee leadership prior to submitting the appropriate form, to decide on an appropriate development track (based on market needs) and draft a project plan including key milestones and the proposed date of the first meeting.

The proposal will be circulated to the P-members of the technical committee or subcommittee for voting, and to the O-members for information.

### IMPORTANT NOTE

**Proposals without adequate justification risk rejection or referral to originator.**

Guidelines for proposing and justifying a new work item are contained [in Annex C of the ISO/IEC Directives, Part 1](#).

- The proposer has considered the guidance given in the Annex C during the preparation of the NP.

Resource availability:

- There are resources available to allow the development of the project to start immediately after project approval\* (i.e. project leader, related WG or committee work programme).

\* if not, it is recommended that the project be first registered as a preliminary work item (a Form 4 is not required for this) and, when the development can start, Form 4 should be completed to initiate the NP ballot.

**Proposal** (to be completed by the proposer, following discussion with the committee leadership)

**Title of the proposed deliverable**

**English title**

Driver training — Intelligent training system for vehicle driving

**French title (if available)**

[Click here to enter text.](#)

*(In the case of an amendment, revision or a new part of an existing document, include the reference number and current title)*

**Scope of the proposed deliverable**

The document specifies the terms and definitions, requirements (including the function requirements and performance requirements), test methods, packaging, transportation and storage of the intelligent training system for vehicle driving, not including the equipments of this system. This document is applicable to the design, development and delivery of the intelligent training system for vehicle driving.

### **Purpose and justification of the proposal**

Vehicle driver training is the first safety protection to road traffic safety. As a typical traditional industry, the research and application of intelligent technology in driving training and driving test is relatively late. In recent years, some equipment and systems with the help of electronic technology have appeared in the field of driving test. With the help of satellite positioning system and computer logic program, the test can be judged by artificial examiners, and the electronic driving qualification examination is partially realized. A number of driving school enrolment system platforms based on Internet technology began to appear, which promoted the process of information construction of driving training and driving test industry. However, the application of these technologies is only focused on the electronic driving training enrolment, driving school management and driving test process, without systematic in-depth research on artificial intelligence technology in driver driving ability training. In recent years, with the progress of artificial intelligence technology and the increasing demand of driver training industry for improving training quality, improving training experience and reducing training cost, the technical conditions for applying artificial intelligence technology to driver training industry and developing and applying robot coach instead of artificial coach are becoming more and more mature, and the social demand is becoming more and more urgent. Many countries and regions in the world have successively carried out relevant research, product development and application in this regard. Among them, China released the first generation of intelligent driving training system (robot coach) on January 26, 2016. The system uses multi-sensor information fusion and human-computer interaction functions to provide training guidance. It has been applied in more than 150 driving schools and has trained more than one million students. The paper *An Intelligent Driver Training System Based on Real Cars* introducing the development technology of the product was published in the international academic journal *sensor* in February 2019. Some teams in Germany have also explored the application of virtual reality and data analysis technology to vehicle driver training. Microsoft has also carried out research on driver assistance training technology based on mobile computing platform in India. At the previous "International Forum on vehicle driving training and road traffic safety" held from 2016 to 2021, intelligent driving training technology was one of the hot topics discussed at the meeting and received universal attention. Representatives of Germany, Sweden, Netherland, Japan and other countries introduced their work related to the application of artificial intelligence, virtual reality and augmented reality technology to driver training. It can be seen that the digitization and intellectualization of driver training, as the technical development direction in this field, has a high international consensus.

Although there are some differences in traffic rules for different countries, the basic requirements for safe driving skills are common, which also determines that the functions of the intelligent training system are similar and have unified standard requirements. The development of international standard for vehicle driving intelligent training system will help to promote the technological progress of driving training industry all over the world. it is more conducive to promoting the exchange and cooperation of relevant technologies in the field of driver training, promoting the application of this technology to the world, improving the quality of driving training in various countries and protecting road traffic safety.

#### **Consider the following:**

*Is there a verified market need for the proposal?*

*What problem does this document solve?*

*What value will the document bring to end-users?*

See [Annex C](#) of the ISO/IEC Directives, Part 1 for more information.

See the following guidance on justification statements in the brochure 'Guidance on New work': <https://www.iso.org/publication/PUB100438.html>

Please select any UN Sustainable Development Goals (SDGs) that this document will support. For more information on SDGs, please visit our website at [www.iso.org/SDGs](http://www.iso.org/SDGs)."

- GOAL 1: No Poverty
- GOAL 2: Zero Hunger
- GOAL 3: Good Health and Well-being
- GOAL 4: Quality Education
- GOAL 5: Gender Equality
- GOAL 6: Clean Water and Sanitation
- GOAL 7: Affordable and Clean Energy
- GOAL 8: Decent Work and Economic Growth
- GOAL 9: Industry, Innovation and Infrastructure
- GOAL 10: Reduced Inequality
- GOAL 11: Sustainable Cities and Communities
- GOAL 12: Responsible Consumption and Production
- GOAL 13: Climate Action
- GOAL 14: Life Below Water
- GOAL 15: Life on Land
- GOAL 16: Peace and Justice Strong Institutions
- N/A GOAL 17: Partnerships to achieve the Goal

**Preparatory work**

(An outline should be included with the proposal)

- A draft is attached
- An outline is attached
- An existing document will serve as the initial basis

The proposer or the proposer's organization is prepared to undertake the preparatory work required:  Yes  No

**If a draft is attached to this proposal**

Please select from one of the following options (note that if no option is selected, the default will be the first option):

- Draft document can be registered at Working Draft stage (WD – stage 20.00)
- Draft document can be registered at Committee Draft stage (CD – stage 30.00)
- Draft document can be registered at Draft International Standard stage (DIS – stage 40.00)
  
- If the attached document is copyrighted or includes copyrighted content, the proposer confirms that copyright permission has been granted for ISO to use this content in compliance with [clause 2.13](#) of the ISO/IEC Directives, Part 1 (see also the [Declaration on copyright](#)).

**Is this a Management Systems Standard (MSS)?**

- Yes  No

**NOTE:** if Yes, the NP along with the Justification study (see Annex SL of the Consolidated ISO Supplement) must be sent to the MSS Task Force secretariat ([tmb@iso.org](mailto:tmb@iso.org)) for approval before the NP ballot can be launched.

**Indication of the preferred type to be developed**

- International Standard
- Technical Specification
- Publicly Available Specification

**Proposed Standard Development Track (SDT)**

To be discussed between proposer and committee manager considering, for example, when the market (the users) needs the document to be available, the maturity of the subject etc.

- 18 months\*
- 24 months
- 36 months

\* Projects using SDT 18 are eligible for the 'Direct publication process' offered by ISO /CS which reduces publication processing time by approximately 1 month.

**Draft project plan (as discussed with committee leadership)**

Proposed date for first meeting: 2022-01-10

Proposed dates for key milestones:

Circulation of 1<sup>st</sup> Working Draft (if any) to experts: 2022-08-10

Committee Draft ballot (if any): 2023-06-10

DIS submission\*: 2023-12-10

Publication\*: 2024-12-10

\* Target Dates for DIS submission and Publication should preferably be set a few weeks ahead of the limit dates (automatically given by the selected SDT).

For guidance and support on project management, descriptions of the key milestones and to help you define your project plan and select the appropriate development track, see: [go.iso.org/projectmanagement](http://go.iso.org/projectmanagement)

**NOTE:** The draft project plan is later used to create a detailed project plan, when the project is approved.

**Known patented items (see ISO/IEC Directives, Part 1, [clause 2.14](#) for important guidance)**

- Yes  No

If "Yes", provide full information as annex

**Co-ordination of work**

To the best of your knowledge, has this or a similar proposal been submitted to another standards development organization?

- Yes  No

If "Yes", please specify which one(s):

[Click here to enter text.](#)

**A statement from the proposer as to how the proposed work may relate to or impact on existing work, especially existing ISO and IEC deliverables. The proposer should explain how the work differs from apparently similar work, or explain how duplication and conflict will be minimized**

There is no existing ISO and IEC deliverables and no similar work so far. This has affected the communication, cooperation, promotion and application of intelligent driving training technology in the world.

In ISO/TC 22, the scope is all questions of standardization concerning compatibility, interchangeability and safety, with particular reference to terminology and test procedures (including the characteristics of instrumentation) for evaluating the performance of the following types of road vehicles and their equipment as defined in the relevant items of Article 1 of the convention on Road Traffic, Vienna in 1968 concluded under the auspices of the United Nations, not including the intelligent training system for vehicle driving.

In ISO/TC 204, the scope is standardization of information, communication and control systems in the field of urban and rural surface transportation, including intermodal and multimodal aspects thereof, traveller information, traffic management, public transport, commercial transport, emergency services and commercial services in the intelligent transport systems (ITS) field. This scope is not including driver training system.

In ISO/TC 241, the scope is standardization in the field of RTS, Road traffic safety, management standards, needs, to be effective, to consist of a requirement standard (which ISO 39001 will be), RTS specific auditing requirements in third party certification, and implementation and guidance documents. This scope is not including driver training system.

In ISO/IEC JTC1/SC42, the scope is Standardization in the area of Artificial Intelligence, serve as the focus and proponent for JTC 1's standardization program on Artificial Intelligence and provide guidance to JTC 1, IEC, and ISO committees developing Artificial Intelligence applications. This scope is not including driver training system as well.

In this situation, no existing TC or SC in ISO/IEC for this proposer. We prefer to set a new PC to develop this international standard.

**A listing of relevant existing documents at the international, regional and national levels**

Chinese association standard: T/ZGCJM 001-2019 Intelligent training system for vehicle driving

**Please fill out the relevant parts of the table below to identify relevant affected stakeholder categories and how they will each benefit from or be impacted by the proposed deliverable**

	<b>Benefits/impacts</b>	<b>Examples of organizations/companies to be contacted</b>
<b>Industry and commerce – large industry</b>	Click here to enter text.	Click here to enter text.

<p><b>Industry and commerce – SMEs</b></p>	<p>Benefits: It is helpful to train better drivers, train students more scientifically, improve the operation efficiency and benefit of the school, reduce the cost, and promote the transformation and upgrading of the driver training industry from the traditional mode based on artificial training to the advanced training mode based on artificial intelligence</p>	<p>Vehicle driving school</p>
<p><b>Government</b></p>	<p>Benefits: It helps to provide government departments with scientific evaluation and supervision of driver training effect and training quality. It is beneficial to traffic management, with high quality of drivers and less traffic accidents</p>	<p>Transportation Bureaus, Police department</p>
<p><b>Consumers</b></p>	<p>Benefits, It is helpful for drivers to develop good driving habits and improve the training quality of driving school</p>	<p>Driving school, Driving school students</p>
<p><b>Labour</b></p>	<p>Benefits: Provide advanced means for the teaching process, reduce the workload of manual coaches and improve work efficiency</p>	<p>Driver instructor</p>
<p><b>Academic and research bodies</b></p>	<p>Benefits: Promote academic exchanges on the research and application of artificial intelligence technology in driver training industry</p>	<p>Related university and institute</p>
<p><b>Standards application businesses</b></p>	<p>Benefits: It is helpful to improve the quality of driving training.</p>	<p>Vehicle driving training</p>
<p><b>Non-governmental organizations</b></p>	<p>Benefits: Conducive to the supervision and management of driving school</p>	<p>Vehicle training school associations</p>
<p><b>Other (please specify)</b></p>	<p>Click here to enter text.</p>	<p>Click here to enter text.</p>

<p><b>Liaisons</b></p> <p>A listing of relevant external international organizations or internal parties (other ISO and/or IEC committees) to be engaged as liaisons in the development of the deliverable.</p> <p>ISO/IEC JTC1/SC42, ISO/TC22, ISO/TC204, ISO/TC241</p>	<p><b>Joint/parallel work</b></p> <p><b>Possible joint/parallel work with</b></p> <p><input type="checkbox"/> IEC (please specify committee ID) Click here to enter text.</p> <p><input type="checkbox"/> CEN (please specify committee ID) Click here to enter text.</p> <p><input type="checkbox"/> Other (please specify) Click here to enter text.</p>
<p><b>A listing of relevant countries which are not already P-members of the committee</b></p> <p>No</p> <p><b>NOTE:</b> The committee manager shall distribute this NP to the ISO members of the countries listed above to ask if they wish to participate in this work</p>	
<p><b>Proposed Project Leader</b> (name and e-mail address)</p> <p>Jun Li jli97@163.com</p>	<p><b>Name of the Proposer</b> (include contact information)</p> <p>Dr. LI Yubing Deputy Director General, Department of Standards Innovative Management, SAMR; Secretary General of Chinese Member Body of ISO, SAC Liyb@sac.gov.cn</p>
<p><b>This proposal will be developed by</b></p> <p><input type="checkbox"/> An existing Working Group (please specify which one: Click here to enter text.)</p> <p><input type="checkbox"/> A new Working Group (title: Click here to enter text.) (Note: establishment of a new WG must be approved by committee resolution)</p> <p><input type="checkbox"/> The TC/SC directly</p> <p><input type="checkbox"/> To be determined</p>	
<p><b>Supplementary information relating to the proposal</b></p> <p><input type="checkbox"/> This proposal relates to a new ISO document;</p> <p><input type="checkbox"/> This proposal relates to the adoption as an active project of an item currently registered as a Preliminary Work Item;</p> <p><input type="checkbox"/> This proposal relates to the re-establishment of a cancelled project as an active project.</p> <p><input type="checkbox"/> Other: Click here to enter text.</p>	

**Maintenance agencies (MA) and registration authorities (RA)**

This proposal requires the service of a **maintenance agency**.

If yes, please identify the potential candidate:

[Click here to enter text.](#)

This proposal requires the service of a **registration authority**.

If yes, please identify the potential candidate:

[Click here to enter text.](#)

**NOTE:** Selection and appointment of the MA or RA is subject to the procedure outlined in the [ISO/IEC Directives](#), Annex G and Annex H, and the RA policy in the ISO Supplement, Annex SN.

Annex(es) are included with this proposal (provide details)

[Click here to enter text.](#)

**Additional information/questions**

[Click here to enter text.](#)