中華民國道路協會 函

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主旨：檢送亞澳道路工程協會徵稿資料 1 份，請台端或鼓勵所屬踴躍報名參加，詳如說明，請查照。

說明：

一、依據 2023 年 2 月 1 日亞澳道路工程協會(Road Engineering Association of Asia and Australasia,REAAA)電子郵件辦理。

二、有關旨揭徵稿資料分述如下：

(一)活動名稱：ADVANCE TECHNOLOGY IMPLEMENTATION TOWARDS SUSTAINABLE ROAD DEVELOPMENT。

(二)7 個徵稿主題：

1. 創新鋪面設計、維護/維修材料(New and Innovative Pavement Design, Maintenance/Repair Material)。
2. 道路安全(Road Safety)。
3. 道路和氣候變化的復原力及災害管理(Resilience and Disaster Management for Road and Climate Change)。
4. 岩土、橋樑、隧道(Geotechnic, Bridge, and Tunnel)。
5. 運輸與公路規劃、道路幾何、輔助性(Transport and Highway Planning, Geometric of Road, and Accessibility)。
6. 運輸管理與項目管理的新創戰略(Transport Administration and Strategic Improvisation of Project Management)。
7. 路網資產管理與數位技術(Asset Management and Digital technology in Road Network)。

（三）重要期程：

1. 2023 年 2 月 28 日(二)前：摘要提交(Deadline for Submission of Abstracts)。
2. 2023 年 3 月 31 日(五)前：摘要評審通過通知(Notification of Acceptance of Abstracts)。
3. 2023 年 6 月 30 日(五)前：完整論文提交(Deadline for Submission of Full Papers、Notification of Acceptance of Full Papers)。
4. 2023 年 8 月 24(四)~27 日(日):印尼, 拉布安巴佐(LABUAN BAJO, INDONESIA)論文發表。

（四）徵稿方式

1. 摘要截止時間：2023 年 2 月 28 日(二)前以英文撰寫至多 250 字。
2. 格式：微軟 Word A4 格式、PDF 格式。
3. 徵稿網址：
   https://linktr.ee/AARC2023

三、如欲參加者，惠請副知本會，逕於期程內至指定網頁上傳相關資料。

正本：本會個人會員、本會各常務理事、理事、常務監事、監事、各委員會主委
副本：

中華民國道路協會

亞澳道路工程協會
(Road Engineering Association of Asia and Australasia,REAAA)
徵稿資料彙整

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REAAA GOLDEN JUBILEE

REAAA 50 YEARS

1st Announcement

ADVANCE TECHNOLOGY IMPLEMENTATION TOWARDS SUSTAINABLE ROAD DEVELOPMENT

ASIA AUSTRALASIA ROAD CONFERENCE
24TH – 27TH AUGUST 2023
09.00-21.00 CENTRAL INDONESIA TIME (UTC +8)
LABUAN BAJO - INDONESIA

Organized by:

PUPR
SIGAP MEMBANGUN NEGERI
Ministry of Public Works and Housing

REAAA
Road Engineering Association of Asia and Australia

PIARC
World Road Association

PHJI
Indonesia Road Development Association

CALL FOR TECHNICAL PAPER

Contributions are invited to participate only on the topics listed below:

- New and Innovative Pavement Design, Maintenance/Repair Material
- Road Safety
- Resilience and Disaster Management for Road and Climate Change
- Geotechnic, Bridge, and Tunnel
- Transport and Highway Planning, Geometric of Road, and Accessibility
- Transport Administration and Strategic Improvisation of Project Management
- Asset Management and Digital technology in Road Network.

Papers shall be submitted in two stages:

1 Abstract

Abstracts are submitted online by the Authors at the latest **February 28, 2023,** through this link:

linktr.ee/AARC2023

- Abstracts written and submitted in **English are highly recommended**, opportunities for authors who wish to submit their abstract in Bahasa also open up.
- The length of the abstract **should not exceed 400 words**.
- The papers should present case studies, research results, and/or practical experiences related to the topics of this call (attached).

2 Full paper

Full paper can be submitted after the abstract has been accepted.

FORMAT AND GUIDELINE

ABSTRACTS AND PAPERS

1. Submission in English is highly recommended (opportunities for authors who wish to submit their abstract in Bahasa also open up).

2. The length of abstract should not 250 words in length.

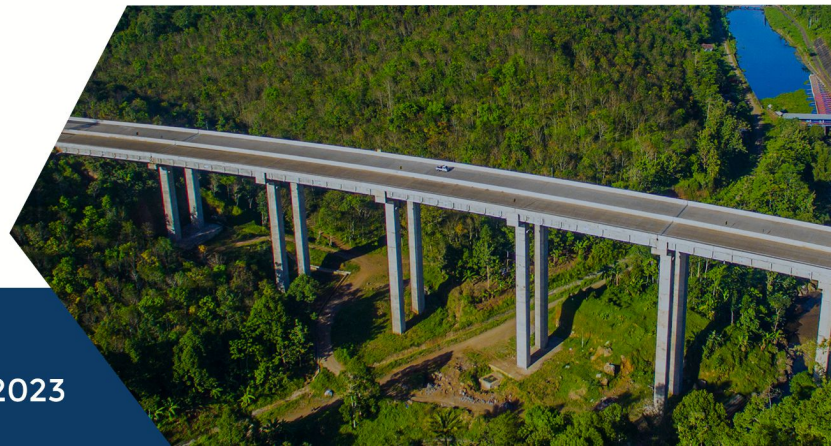
3. The abstract and paper should present case studies, research results, and/or practical experiences related to the topics of this call (attached).

4. The abstract must include the author /co-author /s name /s, date of birth, title /s, position /s, organization /s and contact address/es (including email address/es).

5. The abstract should be typed double spacing on A4 size paper (210 mm x 297 mm) using Microsoft Word.

6. The abstract should be submitted in PDF format.

For the full format and guideline, please access: **linktr.ee/AARC2023**



SCHEDULE FOR ABSTRACTS AND PAPERS

End of **FEB 2023**	Deadline for Submission of Abstracts
End of **MARCH 2023**	Notification of Acceptance of Abstracts
End of **JUNE 2023**	Deadline for Submission of Full Papers Notification of Acceptance of Full Papers

LOCATION

Labuan Bajo was only a small fishing site, but flourished to become the gateway to many exotic destinations in East Nusa Tenggara. The extraordinary interest among travelers lies in Komodo Dragons or locally called ora. It is a valuable alluring factor, showcased in its superb national park. Labuan Bajo can be that ideal getaway with choices of land and sea to explore for some adventurers. There are three majorities of ethnic groups, namely the Manggarai, Bima, and Bugis. People coming from other parts of Flores, like Ende, Ngada, Maumere, live side by side with them. You can meet some of the locals in their beautiful village of Labuan Bajo.

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FORMAT AND GUIDELINE FOR

ABSTRACTS

ASIA AUSTRALASIA ROAD CONFERENCE

28TH – 31ST AUGUST 2023

LABUAN BAJO - INDONESIA

ABOUT THIS GUIDE

To submit a abstract to the ASIA AUSTRALIA ROAD CONFERENCE for peer review and presentation at the ASIA AUSTRALIA ROAD CONFRENCE, Labuan Bajo 2023, follow the instructions in this guide. All authors are required to submit abstract to ASIA AUSTRALIA ROAD CONFERENCE committee via this link https://linktr.ee/AARC2023.

ABSTRACT REVIEW CRITERIA

- The abstract should concisely convey the content of the paper.
- The text should be written in simple, concise, and effective English.
- The content of the abstract should be new or original, deal with issues that are timely, and have lasting value.
- The abstract should present case studies, research results, and/or practical experiences related to the listed topics (list of topics attached).

SCHEDULE

Deadline for Submission of Abstracts	**28 February 2023**
Notification of Acceptance of Abstracts	**End of March 2023**
Deadline for Submission of Full Papers	**End of June 2023**
Notification of Acceptance of Full Papers	**End of June 2023**

LENGTH AND CONTENT OF ABSTRACT

The abstract must be no longer than 250 words, it must be self contained, and it must not require reference to the paper to be understood. The abstract should present the primary objectives and scope of the study or the reasons for writing the paper; the techniques or approaches should be described only to the extent necessary for comprehension; and

findings and conclusions should be presented concisely and informatively. The abstract should not contain unfamiliar terms those are not defined, undefined acronyms, reference citations, or displayed equations or lists.
Keywords : maximum 5 keywords in abstract.

AUTHOR NAMES AND AFFILIATIONS

The name/s, title/s, institution, and e-mail address for each author must be listed on the title page. The list should be a single column. One corresponding author must be designated for papers with multiple authors by underlined the author's name. ASIA AUSTRALIA ROAD CONFERENCE committee will communicate only with the corresponding author, who is responsible for informing the co-authors of the abstract submission and disposition. An author should list his or her affiliation and e-mail address at the time of the research for the paper; if the affiliation has changed, the current affiliation and e-mail address also should be included. (Corresponding authors are responsible for notifying ASIA AUSTRALIA ROAD CONFERENCE committee for any change in e-mail address for themselves or co-authors).

ABSTRACT SUBMISSION

Authors must convert their abstracts to PDF format before submission to the link. Authors are reminded that the best way to avoid last-minute complications is to submit their abstract well before the deadline.

DEADLINE FOR ABSTRACT SUBMISSION
28 February 2023

All authors are required to submit abstract to ASIA AUSTRALIA ROAD CONFERENCE committee via this link https://linktr.ee/AARC2023.

PAPER TOPICS

A. New and Innovative Pavement Design & Maintenance/Road Pavement Recycling

This theme focuses not only on topics relating to innovative methods and procedures for maintenance, including the identification of solutions for maintaining the availability during the execution of maintenance measures as well as the future use of data-driven approaches for the monitoring of pavements but also on aspects of sustainability (recycling and carbon footprint).

This topic also welcomes case studies or research papers related to the development or the use of innovative materials which can be used in pavement structure layers (asphalt, concrete,etc) or base layers.

This covers a broad topic such as alternative or modified binders, the use of alternative aggregates (incl. waste materials such as plastics, rubbers, glasses) or different types of fibers, the development of new pavement mixes, or the use of precast pavement modules of different materials. New design aspects or the effect on the service life of these new materials can also be discussed.

B. Road Safety

Traffic safety is a public concern globally, with recorded deaths totaling around 1.35 million annually. It is observed that ninety percent of traffic deaths occur in LMICs (Low Middle-Income Countries), and then assesses and identifies the best practice of road safety activities for LMICs. The theme explores proven countermeasures that are effective in reducing the likelihood and severity of crashes at a given location, safe road design and network for the benefit of all users in particularly for the most vulnerable, and road safety management capacity strategies, plans supported by robust data collection and evidence based.

Furthermore, it forges links with the relevant sectors to assemble knowledge of transportation safety and security issues and their contribution to system resiliency. With the increasing use of cyber-physical systems in monitoring and management, more disciplines involved in the life cycle of road assets need to have an understanding and appreciation of the security issues that arise.

C. Resilience and Disaster Management for Road and Climate Change

It is identified that traffic operations minimize the health impact of vehicle emissions, and improvement of pavement design, construction, and maintenance to reduce traffic noise. Also, understanding the road and road transport impact on wildlife habitats and their interconnections is essential for road construction to be implemented in the area affluent with natural environment. It needs to be carefully considered about environmental sustainability, and diligently presents how road organizations commit to restraining air pollution and traffic noise, and the impact on wildlife habitats.

Road owners and operators are required to manage a very broad spectrum of threats in the future. One of the aim of this theme is to identify hazards and environmental threats within the context of road infrastructure resilience, and to assess several approaches to increase resilience-taking into account the economic, environmental, and social aspects of resilience management.

In particular for Indonesia, it must be able to produce infrastructure that is more resilient and disaster-resistant, bearing in mind that in recent years the La Nina phenomenon has resulted in extreme weather in Indonesia, especially during the rainy season. Road and bridge developers are always aware of water-related disasters, especially since the rainy season is now shorter in duration but greater in intensity due to climate change. Topic related to infrastructure development that focuses on 3 (three) things, namely quality, environmental sustainability, and aesthetics as well as hydrology are important.

Developing a reliable information collection and sharing system is the first step of proactive disaster management toward engaging with internal and external stakeholders and understanding their information needs and expectations. The study of disaster management techniques using Big Data and Social Network Data as well as to analyze the financial aspect of disaster management in preparedness, mitigation response, and recovery phase, and to update the Disaster Management Manual are to be expected in this theme.

Furthermore, establishment of an emergency response task force to keep infrastructure including the road network connected and functioning after a disaster can also be related for this topic and the use of meteorological data from the Meteorology, Climatology and Geophysics Agency also forms the basis for responding to disaster risks related to hydrometeorology in road infrastructure.

D. Geotechnic, Bridge, and Tunnel

In addition to questions concerning the improvement of the resilience of earth structures to natural hazards, this theme focuses in particular on the identification of technologies and innovations in their construction and maintenance.

The subject of resilience also plays a major role in the field of Bridges. Here, the focus is on questions of adaptation to the consequences of climate change and on improving the resilience of bridges in the case of seismic events. The development of procedures and methods for bridge inspections and the implementation of these new technologies within bridge management systems can also be included. Lessons learned from forensic engineering of bridge collapses can also be considered. Additionally, the use of innovative construction materials for the repair of aging bridges can also be addressed.

As mentioned above, the subject of resilience can also be dealt with in a separate issue for "Tunnels", where both the construction and maintenance as well as the future use of data-driven approaches for preventive and/or predictive maintenance are addressed. Operating and ensuring the safety of users is a major challenge for owners and operators of road tunnels. Therefore, best practice approaches and successful solutions for the safe operation of heavily-traffic urban tunnels as well as

the impact of new propulsion technologies on tunnel operation and safety can be investigated. This theme can address ITS applications for tunnels including the identification of the potential of big data and data analytics applications for the operation of road tunnels as well as the update and improvement of the risk assessment software for the transport of dangerous goods in tunnels.

Strengthening slope stability and applying slope protection to prevent slope collapse in the road network are some things that are much needed to bring up common/latest problems in many regions.

E. Transport and Highway Planning, Geometric of Road, and Accessibility

Within the concept of sustainability in transport network planning - also related to accessibility and equity-, one aspect that is analyzed is public health, probably included in the objective of "identifying, investigating and documenting the social value of transport". For this activity, it can be analyzed of impact techniques and identified best practices in ex-post project evaluation. With all this, it will deepen the relationship between transport investments and economic growth.

In view of the importance of guidelines and standards in the field of road infrastructure, this theme focuses on collecting these standards from several countries and analyzing analogies and differences, taking into account the type of road. The current reliability of geometric models addressing the new mobility - new propulsion techniques and autonomous driving - as well as investigating the use of new tools such as Big Data to reconsider design parameters and models based on road user behavior can also be analyzed.

The inhabitants' mobility needs in the commuting areas in order to make sure that all transportation needs in relation to the services delivered by cities will be taken into consideration. It will take into account the complexity of urban areas (integration with land planning, multimodality, public support, and new mobility modes).

Rural areas provide goods, industries, and a workforce for all communities, and roads are the most important way to exchange goods and services. This theme can also be focused on accessibility in rural areas and on mobility needs. Road networks in rural areas are very extensive compared to the low density of the population, and as a result, it is difficult to finance the construction and maintenance of those networks and the safety conditions are generally poor. Therefore, this theme can also be focused on improving technical solutions for paved and unpaved roads in rural areas.

Mobility on the roads is undergoing a rapid evolution in recent years as a result of the application of new technologies both on the roads and in vehicles. Mobility is an issue with a vital impact. It is something that we have corroborated or given greater visibility in this pandemic. Fundamental for the development of our daily life work, leisure and family, and social relationships, and for the industry, and the accessibility to goods.

The rapidity of changes and the appearance of new forms and patterns of mobility make it necessary for authorities and road operators to be aware of the challenges and opportunities that this new reality offers, to manage them appropriately, and to carry out continuous monitoring of evolution.

F. Transport Administration and Strategic Improvisation of Project Management

This theme focuses on identifying best practices for establishing a framework for measuring the efficiency and effectiveness of Transport Administrations, including the establishment of assessment indicators/evaluation indexes (benchmarking) that can be used to recognize opportunities for improving the overall performance of transport administrations, with a particular focus on overall customer experience and communication of performance information. All this, taking into account the impact of the sharing economy and other disruptive technologies on the performance of Transport Administrations.

In addition, it can also be analyzed the effective approaches for defining and promoting diversity in opportunity across the roads and transportation sectors, as well as how to attract new employees into the transport industry/profession, specially, young professionals. Good preparation for infrastructure projects is of utmost importance to secure their proper financing, wide acceptance, and seamless implementation.

Another aims of this theme are to review the literature and existing project preparation software and analyze good practices of project management for improving and optimizing public and private investment, as well as to define strategies to accelerate project delivery and reduce project lifecycle costs. It can also facilitate the identification of how well-prepared projects contribute to a culture of transparency and accountability.

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G. Asset Management and Digital Technology in Road Network

Implements and integrates an asset management framework are developed based on international standards so that road organizations manage their performance, risks, and costs more effectively and efficiently. The results of the theme will bring a

guideline for implementing the asset management system. The theme can explore not only asset management but also the resilience of road networks and the renewal and rejuvenation of aging infrastructure. There is another need for decarbonizing road transport all over the world both for freight and passengers. ERS (Electric Road Systems) is one possible solution for diminishing the carbon footprint. ERS plays a leading role in exchanging knowledge and experience in ERS globally, addressing as well road operation, road safety, road maintenance, and cyber security aspects.

This theme will also aim at representing a wide diversity of circumstances, including cases from several countries and continents, and will make references to the work of other organizations, especially car manufacturers, IT companies, equipment manufacturers, service providers, and their representative bodies.