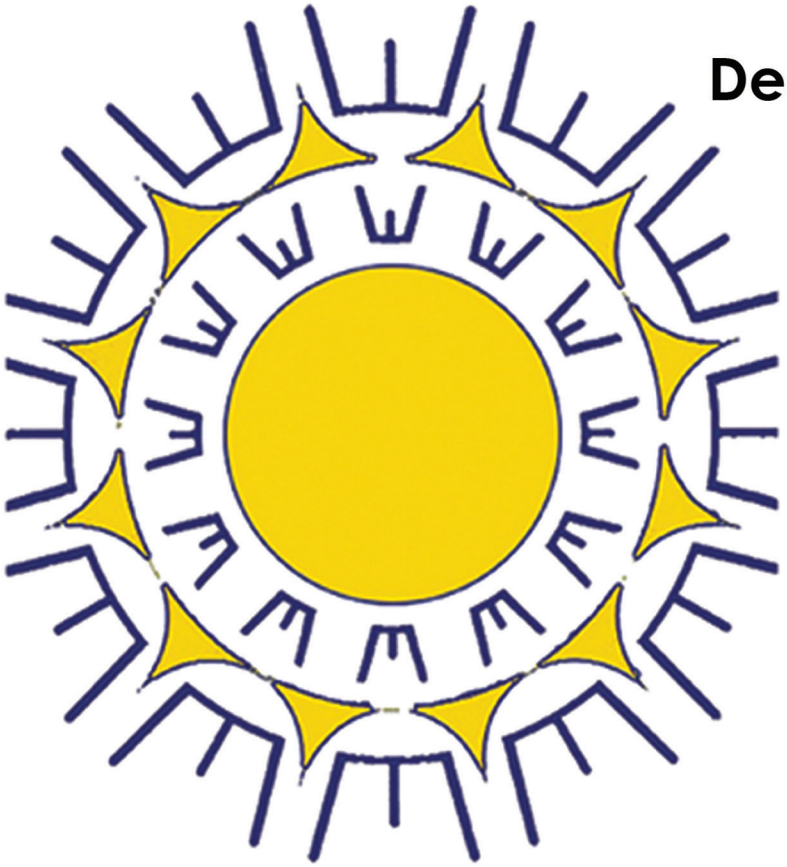
EACE Journal

Vol-10 No 1
December 2019



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ETHIOPIAN ASSOCIATION of CIVIL ENGINEERS

EACE
Journal

Vol-10 No-1
December 2019

A PUBLICATION OF

THE ETHIOPIAN ASSOCIATION OF CIVIL ENGINEERS

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Those of you who are interested to submit papers for our Journal and Bulletin Please forward your papers up to **31st March 2020** to the following **Address:**

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Addis Ababa,Ethiopia

Message from the President

Distinguished EACE members and other readers,

I would like to express my heartfelt gratitude to those who unreservedly contributed their precious time and energy for the facilitation of the EACE's regular duties and other extraordinary ventures throughout the tenure of the current Executive Committee (EC).The EC has tried to add some more efforts and values which could further advance the contribution of the association to its members and the public at large. The committee was engaged in regular weekly meetings to adequately address and follow up pertinent issues as well as to support some extraordinary initiatives the EACE.

The main activities of the EC and the EACE committees during the past one year were:

- Strengthening cooperation with other professional associations and institutions such as Architects Association of Ethiopia, DC Society of Professionals Association (USA), American Institute of Architects, National Society of Professional Engineers Associations (USA), and Ethiopian Construction Works Corporation (ECWC);
- Taking a big part in the reactivation of the Joint Engineering Professionals' Association (JEEPA);
- New registration as a member of the African Engineers Confederation;
- Coordination of the Ethiopia 2050 Grand Challenges and Opportunities Conference;
- EACE's office rehabilitation and maintenance;
- EEACE's web site redevelopment;
- Participation in the national Occupational Standard and Certification System for Professionals as Permanent NSC and TC member and other various initiatives and workshops.

The main theme of the upcoming workshop of the 22nd General Assembly is " The role of Civil Engineering Profession towards overcoming the expected Grand Challenges Ethiopia faces by the year 2050".

The Civil Engineering profession plays pivotal role in preparation and implementation of any kind of development plan. Therefore, We, civil engineers, are highly indebted in bringing about a positive and determining change in taking out the Ethiopian people from detrimental poverty. We must design and implement projects in absolute professionalism, through ethical manner and with due concern to value for money.

The EACE has exerted its outmost effort in organizing the ETHIOPIA 2050: GRAND CHALLENGES AND OPPORTUNITIES workshop that took place on 19th and 20th December 2019. Our association vows to continue its active participation on the subsequent tasks of promoting and taking forward this Grand Vision in a sustainable manner.

On behalf of the EC and myself, I would like to take this opportunity to urge all EACE members to take their own part in supporting this noble venture and to promote its ideals to the relevant authorities and their peer groups.

Eng. Tesfaye Workineh

President, EACE

Message from the Editorial and Publication Committee

It is with great enthusiasm that the Editorial and Publication Committee of the Association presents this publication to our respected readers. In response to our call for papers, 35 abstracts were submitted where 15 abstracts were accepted for full paper submission after double blind peer review procedure. From accepted 15 abstracts only 10 full papers were submitted and based on the review results, we eventually accepted 8 papers for our publications. We thank all those who submitted their abstracts and congratulate all authors of published papers in our publications. We commend their patience and understanding as the review process was painstaking and rigorous. We thank them for their commitment to scientific research, professional development, and the hard work put into doing the research and writing of the papers.

On that note, we would like to cordially thank our peer reviewers for their effort, contribution and essential service as gatekeepers for the scientific integrity of published research papers. The Committee would also like to use this opportunity to express its heartfelt gratitude to organizations and individuals who sponsored publications of the Association.

It is our strong hope that this publication has its own humble contribution to the advancement of our profession at a national and global context. Hereby, we highly encourage members of the association to use this outlet to publish your papers in the upcoming publications.

"If you want to change the world, pick up your pen and write." Martin Luther

The Editorial and Publication Committee

P.O.Box 20930 Code 1000

Addis Ababa

Acknowledgement

The Editorial and Publication Committee of the Association would like to acknowledge the contribution of those individuals who spared their precious time in reviewing the abstracts and papers submitted to this year's Journal and Bulletin of the Association. The Committee would like to cordially thank the following individuals for their professional contribution in reviewing submitted abstracts and papers.

1.Dr. Abraham Gebre
2.Dr. Argaw Asha
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Declaration

All papers in this publication have been gone through a review process involving initial screening and review of abstracts by at least two reviewers; review of full papers by at least two reviewers, reporting of comments to authors, and revision of papers by authors. We do not authorize infringement of copyrights / intellectual property rights by authors. If you believe that any material in any paper published in this publication has been inappropriately used, please contact the Editorial and Publication Committee of the Association. Authors are responsible for ensuring good academic practice when conducting and reporting scientific research. It is the responsibility of authors to abide by the norms of academic ethics and integrity. EACE accepts no liability for copyright infringements or inappropriate use of material in any paper published.

All the views and opinions reflected in the articles herein are those of the authors and the Editorial and Publication Committee neither endorses nor opposed any particular outlook or idea that appears in this publication.

Editorial and Publication Committee (EACE)

ETHIOPIAN ASSOCIATION OF CIVIL ENGINEERS-(EACE) CODE OF PROFESSIONAL ETHICS

FUNDAMENTAL PRINCIPLES

Engineers uphold and advance the integrity, honor and dignity of thr engineering profession by:

1. Using their knowledge and skill for the enhancement of human welfare and the
2. Being honest and impartial and Serving with fidelity the public, their employers and clients:
3. Striving to increase the competence and prestige of the engineering profession and
4. Supporting the professionals and technical societies of their disciplines

Fundamental canons

Canon I : engineers shall hold paramount the safett, health and wefare of public and shall strive to comply with the principles of sustainable development in the performance of their professional duties

Canon II : Engineers shall perform services only in areas of their competence

Canon III: engineers shall issue public statements only in an objective and truthful manner

Canon IV: engineers shall act in professional matters for each employer or client as faithful agents or trustees, and shall avoid conflicts of interest

Canon v: enginners shall build their professional on the merit of the merit of their services and shall not compete unfairly with others

Canon vI: engineers shall act in such a manner as to uphold and enhance the honor, integrity and dignity the engineering profession.

Canon vII: engineers shall continue their professional development through out their careers, and shall provide opportunities for the professional development of those engineers under their supervision.