

**11th EAI International Conference on Advancements of Science and Technology- ICAST
2023: November 24-26, 2023 Bahir Dar, Ethiopia**

Welcome Message

Dear ICAST-2023 Participants,

On behalf of the Organizing Committee, we are honoured and delighted to welcome you to the 11th EAI International Conference on the Advancements of Science and Technology (ICAST-2023) which will be held from November 24-26, 2023 in Bahir Dar, Ethiopia. The goal of this conference is to provide a platform for national and international researchers, engineers, as well as industrial professionals to present and discuss their innovative research results. Starting from 2012 as a national and upgraded as an international conference the following year, ICAST became one of the pioneer platforms for academic and research discourse in science, engineering, and technology areas. The quality, number of international participants, and scope of ICAST has been improved from time to time through wider communication and strict peer review process. Starting from 2018, ICAST conference proceedings have been published as a book series in Springer and since 2022 it is expanded into three book series in two areas of proceedings. Moreover, we observed that through time the conference is able to create wider opportunities, especially for Ethiopian young researchers, in getting experience in scientific writing and presentation.

This year, the conference is organized into seven tracks focusing on wide scopes of engineering, technology, and innovations. In ICAST-2023, we had 193 submissions, 89 of them were accepted, and 68 papers are registered to be presented. The conference will include keynote addresses, plenary speakers, and technical paper presentation sessions. We hope that young engineers and scientists will take this opportunity to extend their network and have scientific discussions with the leading scientists in science and technology.

Organizing a conference with such size and scope is not an easy task. However, as BiT is striving to excel in quality research, innovation, and education, organizing such conferences becomes a yearly task and culture. To that end, we would like to thank the organizing committee for their unreserved commitment, European Innovation Alliance (EIA) group for providing their guidance, reviewers, and BiT management for their all-round support. Lastly, we would like to thank all of the conference participants and authors for their scientific contributions.

Welcome to Bahir Dar and we hope you will enjoy your stay!

Muluken Zegeye Getie (PhD)

Conference General Co-Chair

BiT, Bahir Dar University

Solomon Workneh Fanta (PhD)

Technical Program Chair

BiT, Bahir Dar University

**11th EAI International Conference on Advancements of Science and Technology- ICAST
2023: November 24-26, 2023 Bahir Dar, Ethiopia**

Schedule

General Program Outline

Day	08:00-08:30	08:30-10:15	10:15 - 10:45	10:45-12:00	12:00-14:00	14:00-17:30	17:30-18:30
Saturday, Nov. 25, 2023	Registration	Opening & keynote session	Coffee break	Parallel technical sessions	Lunch break	Parallel technical sessions	Networking

**Conference Opening and keynote Program
Saturday, Nov. 25, 2023(8:00-10:45)
Session Chair: _____**

Time	Opening and Keynote Session
8:00- 8:40 PM	Conference registration
8:40-9:20	Welcome <ul style="list-style-type: none">• Conference General Chair and Conference Technical Program Chair• Representatives from BiT and Bahir Dar University
9:20-10:00	<i>Opening Keynote Speaker: Prof. Daniel Kitaw</i>
10:00-10:15	<i>Discussion on the presentation</i>
10:15 – 10:45	Coffee Break

**11th EAI International Conference on Advancements of Science and Technology- ICAST
2023: November 24-26, 2023 Bahir Dar, Ethiopia**

Parallel Sessions – Sessions 1
Saturday Nov.25, 2023
Time: 10:45 -17:30

Time	Session 1: AI, Machine Learning, and its applications
	Session Chair: Dr. Esubalew Alemneh Rapporteur: Dr. Debas Senshaw
10:45-11:15	Keynote Speaker #1: Dr. Tesfa Tegegne Title: The promise and menace of generative AI in education
11:15-11:30	Bilingual Word-Level Language Identification for Omotic Languages Mesay Gemedo Yigezu, Girma Yohannis Bade, Atnafu Lambebo Tonja, Olga Kolesnikova, Grigori Sidorov, Alexander Gelbukh
11:30-11:45	Collaborative Filtering-Based Recommender System for Ethiopian Tourism Sites Yibeltal Assefa, Million Meshesha, Shegaw Nibret, Birku Gedif
11:45-12:00	Music Genre Classification Using Deep Neural Network with Feature Selection and Optimization Via Evolutionary Algorithm Chalachew M. Chanie, Msge D. Akalu, Abdulkerim M. Yibre
12:00 – 12:15	Q & A
12:15 – 14:00	Lunch break
	Session Chair: Dr. Gebeyehu Belay Rapporteur: Dr Abdulkerim
14:00-14:15	Prediction of Compaction Parameters Based on Atterberg Limit by Using a Machine Learning Approach Semachew M. Kassa, Betelhem Z. Wubineh , Africa M Geremew, Tezera F. Azmatch, Nandyala Darga Kumar
14:15-14:30	Deep Learning-Based Emotion Classification for Amharic Texts Sileshi Bogale Haile, Tadesse Destaw Belay, Tadesse Kebede Bahiru, Tadesse Birara Akele
14:30-14:45	Heart Failure Patients Using Machine Learning and Hyper-Parameter Optimization Techniques Betimihirt G. Tsehay, Abdulkerim M. Yibre
14:45-15:00	Breast Cancer Stage Identification Using Machine Learning Birtukan Shegaw Arega and Tesfahunegn Minwuyelet Mengsitu
15:00-15:15	Cervical Cancer Histopathological Image Classification Using Imbalanced Domain Learning Gizeaddis Lamesgin Simegn Mizanu Zelalem Degu, Geletaw Sahle Tegenaw
15:15-15:30	Q & A
15:30 – 16:00	Coffee Break
	Session Chair: Dr. Gebeyehu Belay Rapporteur: Dr Abdulkerim
16:00-16:15	Artificial Intelligence Based Secured Smart Mirror Control Systems with Enhanced Vehicle and Sign Board Detection Sanjay S, Nithish Soorya S.S, Vengatesh R, Prakasam P, Pushparaghavan, Annamalai

**11th EAI International Conference on Advancements of Science and Technology- ICAST
2023: November 24-26, 2023 Bahir Dar, Ethiopia**

16:15-16:30	Prediction of Fatigue Life of Materials Using Machine Learning Approach: A Review Getaw Ayay, Dr. Ermias G. Koricho
16:30-16:45	ChatGPT in Education: Opportunities and Concerns for Functional English Sentence Structure Analysis for Automatic Question Generation Walelign Tewabe Sewunetie, L'aszl'o Kov'acs
16:45-17:00	Q & A

Parallel Sessions – Sessions 2
Saturday Nov.25, 2023
Time: 10:45 -17:30

Time	Session 2: Industrial Automation, Networking, and Communication Systems
	Session Chair: Dr. Girmaw Teshager Rapporteur: Dr. Fareeza Fayaz
10:45-11:15	<i>Keynote Speaker #1: Dr.-Ing. Belachew Bantyriga</i> <i>Title: The Future Power System: Trends, Challenges, and Opportunities</i>
11:15-11:30	ABF and PBF Optimization for IRS Based WCS with Practical Phase Shifts Gebre Goshu Mengstu, Amare Kassaw Yimmer
11:30-11:45	Modeling and Trajectory Tracking Controller Design for Nonholonomic Wheeled Mobile Robots Haimanot Taye Haile, Chalie Getinet Biadgie
11:45-12:00	Bi LSTM Based on Indoor Localization by Using Smartphones and Wi-Fi with RSSI Values Biruh Andualem, Yirga Yayeh, Belayneh Teshome
12:00 – 12:15	Q & A
12:15 – 14:00	Lunch break
	Session Chair: Dr. SELVAKUMAR SUBRAMANIAN- Rapporteur: Dr. Selamawit Workalemahu
14:00 -14:30	Plenary Speaker 2: Dr. Melak Zebenay Title: System Engineering Approach for Ethiopian Complex Projects
14:30-14:45	Design and Simulation of SCADA System to Improve Reliability of a Distribution Feeder (Case Study on Bahir Dar, Feeder R6-G2) Melaku Asrat Fenitaw, Teketay Mulu Beza
14:45-15:00	Development of a Household Synthetic Load Profile for Rural Electrification Ahunim Abebe Ashetehe, Fekadu Shewarega, Belachew Bantyriga, Getachew Biru, Samuel Lakeou

**11th EAI International Conference on Advancements of Science and Technology- ICAST
2023: November 24-26, 2023 Bahir Dar, Ethiopia**

15:00-15:15	Dual Channel MEMS Actuated Tunable Optical Filter Based on Polarization Insensitive Compound Ring Resonator for DWDM Networks Hailu Dessalegn Ayalew, Srinivas Talabattula, Pushparaghavan Annamalai
15:15-15:30	Q & A
15:30 – 16:00	Coffee Break
	Session Chair: Dr. SELVAKUMAR SUBRAMANIAN- Rapporteur: Dr. Selamawit Workalemahu
16:00-16:15	Ethiopic Cryptography: An Efficient Hybrid Encryption Algorithm for Reducing Cyber Security Attack Tadesse Birara, Tadesse Kebede, Tibebu Legesse, Shambel Dessale4, Tadesse Destaw, Almaz Yemataw6, Mersha Derese
16:15-16:30	Simulation of 100 MW Grid-Connected Solar Power Plant and MPPT Control Using PSO-P&O Technique at Metehara in Ethiopia Betelhem Dereje, Fekadu Shewarega, Birhanu Hailu, Mezigebe Getinet, Dereje Shiferaw
16:30-16:45	Trajectory Tracking Control of Three-Degree-Of-Freedom Articulated Robot Manipulator using Neural Network Controller Tsehaynesh Mulusew, Wubie Engdew
16:45-17:00	Optimal Sizing and Feasibility Study of Micro grid System for Rural Area in Gashamo Village, Somali Region of Ethiopia Eyob Abayneh Tegegn and Teketay Mulu Beza
17:00 -17:15	Voltage Profile Improvement and Loss Minimization in a Transmission Line Using Fuzzy Logic Controller Based Unified Power Flow Controller Minale Birlie Bizunch
17:15 -17:30	Adaptive Particle Swarm Optimization-Based Tuning of Fractional Order PID for Moisture Control in an Industrial Rotary Dryer System Adisu Safo Bosera, Raji Ababe Sori, Ashebir Berhanu bayesa
17:30-17:45	Q & A

**11th EAI International Conference on Advancements of Science and Technology- ICAST
2023: November 24-26, 2023 Bahir Dar, Ethiopia**

Parallel Sessions – Sessions 3

Saturday Nov.25, 2023

Time: 10:45 -17:30

Time	Session 3: Advancements in Manufacturing and Mechanization Systems
	Session Chair: Dr. Addisu Negash Rapporteur: Mr. Tefera Eneyew
10:45-11:00	Development and Evaluation of Metering Mechanism for Sowing of Berseem (TrifoliumalexandrinumL.) and Lucerne (Medicagosativa) Crops Smegnew Moges, Rohinish Khurana
10:45-11:00	State of the art of human energy acquisition technologies for electric power generation- A review Addisu Alamirew Meku, Berihun Abebaw Mebratie, Bekalu Sintayehu Ayele, Samuel Getachew Chekol, Addisu Derso Asemie
11:15-11:30	Tractive Performances of Traction Devices of Two Wheeled Tractors in Dry Field Conditions: A Review Samuel Getachew Chekol, Smegnew Moges Mintesinot, Berihun Abebaw Mebratie, Addisu Alamirew Meku
11:30-11:45	The Current state-of-the-Art and Opportunities, Challenges and Futures of Additive Manufacturing in Aerospace Applications: A Review Melkamu Tadesse Getachew, Menberu Zeleke Shiferaw, Bekalu Sintayehu
11:45-12:00	Effects of Crop Parameters and Feed Rates on Performances of Axial Rice Thresher Solomon Tekeste Hailemesikel, Mersha Alebachew, Mulugeta Admasu Delele, Addisu Negash Ali1, Solomon Workneh Fanta, Geta Kidanemariam
12:00 – 12:15	Q & A
12:15 – 14:00	Lunch break
	Session Chair: Dr. Teshome Mulatie Rapporteur: Dr. Betsha T.
14:00-14:15	Physical Properties of Berseem (Trifolium Alexandrinum) and Lucerne (Medicago Sativa) Seeds Smegnew Moges, Rohinish Khurana , Samuel Getachew, Mequanint Demeke
14:15-14:30	Investigating the Thermal Performance of Different Solar-Assisted Dryers for Agricultural Produce: A Review Hailemariam M. Wassie, Muluken Z. Getie1, Bimrew T. Admasu, Mulat S. Alem, Molla A. Alemu, Lamesgin A. Getnet, Atrsaw J. Bezie, Aschale G. Alemu
14:30-14:45	Opportunities and Challenges of E-SCM in Developing Countries Zerihun Wondimu Lemessa, Bereket Haile Woldegiorgis, Alehegn Melesse, Semegn
14:45-15:00	Recent Developments in Biomechanics Based Prediction of Musculoskeletal Disorders Alehegn Melesse Semegn, Bereket Haile Woldegiorgis and Zerihun Wondimu Lemessa
15:00-15:15	Rotating Machinery Fault Diagnosis Using One Dimensional Convolutional Neural Network Fasikaw Kibrete1,2, Dereje Engida Woldemichael and Hailu Shimels Gebremedhen
15:15-15:30	Q & A
15:30 – 16:00	Coffee Break

**11th EAI International Conference on Advancements of Science and Technology- ICAST
2023: November 24-26, 2023 Bahir Dar, Ethiopia**

	Session Chair: Dr. Teshome Mulatie Rapporteur: Dr. Betsha T.
16:00-16:15	Detecting Misalignments of Drilled Holes using Machine Vision Getachew Ambaye, Enkhsaikhan Boldsaikhan, and Krishna Krishnan
16:15-16:30	Enhancing Mass Customization Using a Digital Twin: Review and Model Development Mehari Kumilachew, Assefa Asmare, Bereket Haile, Teshome Mulatie, Matthias Brossog, Jörg Franke
16:30-16:45	Review on the Development of Stirling Heat Pump Thermodynamic Modeling Temesgen Assefa Minale, François Lanzetta, Sylvie Bégot, and Muluken Z Getie
16:45-17:00	Impact of Manufacturing Strategies for the Effectiveness of Mass Customization Mehari Kumilachew, Assefa Asmare, Bereket Haile, Teshome Mulatie, Matthias Brossog, Jörg Franke
17:00-17:15	Q & A

**Parallel Sessions – Sessions 4
Saturday Nov.25, 2023
Time: 10:45 -17:30**

Time	Session 4: Advances in Materials Science and applications
	Session Chair: Dr. Delele Worku Rapporteur: Dr. Tessera Alemneh
10:45-11:15	<i>Keynote Speaker #1:</i> Dr. Minbale Title: Advanced materials for Energy Storage and Conversion (Lithium Based Batteries)
11:15-11:30	Analysis On Thermal Behavior of Bamboo Leaf Ash Blended Cement Paste Gashaw Abebaw Adanu, Bahiru Bewket Mitikie. Shumet Getahun Reda, Kassahun Admassu Abegaz
11:30-11:45	Assessment of Residual Elastic Properties in Damaged Composite Materials Destayehu Addisu Durressa, Ermias G/Kidan Koricho, Addisu Negash, Getnet Ayele
11:45-12:00	Effects of Aggregate Size and Water to Cement Ratio on Fracture Energy of Normal Weight Concrete

**11th EAI International Conference on Advancements of Science and Technology- ICAST
2023: November 24-26, 2023 Bahir Dar, Ethiopia**

	Nikodimos A. Kasaw, Tesfaye A. Mohammed, Habtamu A. Tadesse
12:00 – 12:15	Q & A
12:15 – 14:00	Lunch break
	Session Chair: Dr. Getnet Ashebir Rapporteur:
14:00-14:15	Experimental investigation of the impact strength of sunflower oil-treated Ethiopian highland bamboo fiber- reinforced polyester composites Berihun Abebaw Mebratie, Addisu Alamirew Meku, Ermias Wubet Fenta, Samuel Getachew Chekol
14:15-14:30	Optimizing clay particle reinforcement for the evaluation of starchbased biodegradable micro-composite packaging film. Asmare Tezera, Zenamarkos Bantie, Tegen Dangew, Desalegn Abera, Behailu Bisenebt, Assefa Beyene, Ejigayehu Deslaegn, Awl seid, Tesfa Nega, Mequannt Demeke, Surafiel Aregahegn Tessafa Abrham, Gashaw Arega
14:30-14:45	Parametric Analysis on Heavy Quadricycle Vehicle Front Crash for Safety Optimization Seid Belay Gesese, Haileleoul Sahle Habte
14:45-15:00	Q & A

Parallel Sessions – Sessions 5

Saturday Nov.25, 2023

Time: 10:45 -17:30

Time	Session 5: Process Industries for Sustainable Development
	Session Chair: Dr. Admasu Fanta Rapporteur: Dr. Fentanesh Nibre
10:45-11:15	<i>Keynote Speaker #1: Prof. Nigus Gabbiye</i> Title: Process Intensification Approach: Transforming Conventional Process towards Lower Resources and Energy Usage
11:15-11:30	Formulation and Development of Organic Hair Shampoo from Discharged Beer in Filler Machine (Brewery Industry) and Aloe Vera Plant Gel Mequanint Demeke Aynalem, Tegen Dagnev Tessema, Surafel Aregahegn Agdew, Tessafa Abrham Ashagrie, Belete Adane Mandie, Asmare Tezera Admassie, Smegnew Moges
11:30-11:45	Effect of Spontaneous Sedimentation on the Chemical Composition of Compressed Water Hyacinth Juice as a Pretreatment for Anaerobic Digestion: Comparison of Different Growing Areas Pranshu Bhatia, Anas Hijazi, Shinichi Akizuki, Nigus Gabbiye Habtu, Shinjiro Sato, Tatsuki Toda
11:45-12:00	Formulation and Evaluation of Antidandruff Shampoo from Leaf Extracted Herbs of Aloe Vera (Eret), Ocimum Sanctum (Damakese), and Withania Somnifera (Gizewa): An Outlook as a Herbal Medicine Tegen Dagnev Tessema ¹ , Yohannes Shitahun Wondante, Asmare Tezera Admase, Mequanint Demeke Aynalem
12:00 – 12:15	Q & A
12:15 – 14:00	Lunch break
	Session Chair: Dr. Zenamarkos Bantie

**11th EAI International Conference on Advancements of Science and Technology- ICAST
2023: November 24-26, 2023 Bahir Dar, Ethiopia**

Rapporteur: Dr. Biresaw Demelash	
14:00-14:15	Formulation, Extraction and Characterization of Biopesticides from Birbira (<i>Milletia ferruginea</i>) Seed and Neem (<i>Azadirachta Indica</i>) Leaf Mequanint Demeke Aynalem, Surafel Aregahegn Agdew, Ayalneh Adnew Alemayehu, Member Berihun Nigatu, Addisu Getahun Adugna, Asmare Tezera Admasie
14:15-14:30	Microwave-assisted Hydrothermal Pretreatment of Coffee Husk: Process Parameter Optimization Using Response Surface Methodology Gashaw Muluken Tesslera, Nigus Gabbiye Habtu, Kefyalew Dagnew Addisu, Metadel Kassahune Abera, Fantahun Woldeesenbet Misganaw
14:30-14:45	Recent Advances in Microalgae Biomass Drying, Pre-treatment and Extraction of Polyunsaturated Fatty Acids (PUFAs): A Review Tsegaye Mekuria, Metadel Kassahun, Tsehayneh Geremew, Gizachew Muluneh ⁴ , Amha Belay
14:45-15:00	Utilization, Nutritional and Microbial Characteristics of Awaze: Fermented Domestic Spicy Red Pepper Paste of North Western Part of Amhara, Ethiopia. Biadge Kefale, Mulugeta Admasu, Solomon Workneh Fanta, Solomon Abate
15:00-15:15	Q & A
15:15-15:30	
15:30 – 16:00	Coffee Break

Parallel Sessions – Sessions 6
Saturday Nov.25, 2023
Time: 10:45 -17:30

Time	Session6: Renewable and Green Energy Technologies
	Session Chair: Dr. Molla Asmare Rapporteur: Mr. Yosef Berhan
10:45-11:15	Keynote Speaker #1: Dr. Eshetu Getahun Mulat Title: Renewable energy for post-harvest loss reduction
11:15-11:30	Standalone Solar PV system design and analysis using PVsyst software: (a Case of Bahir Dar, Ethiopia). Hailemariam M. Wassie, Muluken Z. Getie1, Bimrew T. Admasu, Mulat S. Alem, Molla A. Alemu, Aschale G. Alemu

**11th EAI International Conference on Advancements of Science and Technology- ICAST
2023: November 24-26, 2023 Bahir Dar, Ethiopia**

11:30-11:45	Influence of S/N Ratio on Biogas Desulfurization Performance using Conventional Anoxic Bioreactor (ABR) and Membrane Bioreactor (AMBR) Ebrahim Tilahunl
11:45-12:00	Parameter Identification of Single Diode Solar Photovoltaic Model Using Particle Swarm Optimization Hybrid with Newton Raphson Method Edemialeme Gedefaye Mehretie, Samuel Lakeou, Tassew Tadiwose Zewdie and Tefera Terefe Yitayew
12:00 – 12:15	Q & A
12:15 – 14:00	Lunch break
	Session Chair: Dr. Dawit Tesema Rapporteur: Mr. Kassa Wudineh
14:00-14:15	Pre-feasibility Study of Wind Power and Site Suitability Analysis in Dire Dawa, Ethiopia Aleazar Abraham Getachewu Shunki Tibba2 Endashawu Alemu
14:15-14:30	Synthesis of Novel Polyaniline-Nanosphere Composite for the Detection of Ammonia in Poised Meat Tadele AgeruAlemu, Delele Worku Ayele, Ababay Ketema Worku, Minbale Admas Teshager, Praveen , Ramamurthy, Dhakshnamoorthy Mania
14:30-14:45	Recent Developments on Design and Thermal Performance Enhancement of Parabolic Dish Solar Concentrators: A Review Rewla E. Abreham, Muluken Z. Getie, Yared A. Demissie
14:45-15:00	Solar Energy Resource Potential Assessment and the Impacts of Solar PV System Integration on the Performance of Radial Distribution Network Estifanos Abeje Sharew
15:00-15:15	Sustainable Energy Catalyzed Rural Entrepreneurship for Small Holder Farmers in Ethiopia Through A Living Lab Approach Tenaw Tegbar, Nigus Gabbiye, Negese Yayu, Biniyam Zemene, Basazin Ayalew, Sisay Asress
15:15-15:30	Q & A
15:30 – 16:00	Coffee Break
	Session Chair: Dr. Dawit Tesema Rapporteur: Mr. Kassa Wudineh
16:00-16:15	Theoretical Analysis of Working Fluid inside Solar Thermal Trackers Solomon Tesfamariam Teferi, Yonatan Tadesse, Kamil Dino Adem
16:15-16:30	Thermal Modeling and Fuzzy Logic control Design for Forced Conviction Solar Dryer Fiseha Kedir Jemal and Betelihem Zemedkun
16:30-16:45	Treatment of Water Hyacinth Juice in an Up-Flow Anaerobic Digester: Process Stability and Quality of Digestate's Macronutrients Shin-ichi Akizuki, Pranshu Bhatia, Nigus Gabbiye Habtu, Tatsuki Toda, Shinjiro Sato
16:45-17:00	Q & A
17:00-17:15	
17:15-17:30	

**11th EAI International Conference on Advancements of Science and Technology- ICAST
2023: November 24-26, 2023 Bahir Dar, Ethiopia**

**Parallel Sessions – Sessions 7
Saturday Nov.25, 2023
Time: 10:45 -17:30**

Time	Session 7: Sustainable Infrastructure and Built Environment
	Session Chair: Dr. Bitew Genet Rapporteur: Dr. Abebech
10:45-11:15	Keynote Speaker #1: Dr. Mitiku Damitie Title: Sustainable solutions for the future of construction
11:15-11:30	Use of Sisal Fiber for Reduction of Plastic Shrinkage Cracking in Concrete Rahel A. Negatu, Belaynesh N. Alamrew, Asregdew K. Woldeesenbet
11:30-11:45	Assessment of Selected Physico-Chemical Parameters of Selamco Dam Water, South Gondar, Ethiopia Menber Berihun Nigatu, Mengistu Berihun Nigatu, Minaleshewa Atlabachew, Mequanint Demeke Aynalem, Kindie Bitew Worku
11:45-12:00	Investigation of Synthetic Versus Natural Fiber on Interlocking Compressed Stabilized Earth Blocks: A Comparison of Plastic Bottle Fiber and “Teff” Straw. Selamawit Fetene, Asregidew K.Woldeesenbet Rahel A.Negatu and Belaynesh N. Alamirew
12:00 – 12:15	Q & A
12:15 – 14:00	Lunch break
	Session Chair: Dr. Asegdew Gashaw Rapporteur: Mr. Dawit Wagnebachew
14:00-14:15	Contract Time Determination and Work Item Scheduling in Public Building Projects: Case Study in Bahir Dar Befekadu C. Gashe, Asregidew K. Woldeesenbet, Solomon M. Belay, Habtamu E. Endalew
14:15-14:30	Evaluating Flood Vulnerability in Bahir Dar City through an Indicator-Based Method Elias S. Leggesse, Walelign A. Derseh, Afework A. Simegn, Mengiste A. Meshesha
14:30-14:45	Surface Wwater Quality Assessment of Chilanchil Abay Watershed: The Case of Bahir Dar City Waste Disposal Site Dargie Haile, Nigus Gabbiye
14:45-15:00	Hydrological Response of Khat (Catha Edulis) Cultivation in Aba Gerima Watershed, Lake Tana Basin, Ethiopia Kindie Bitew Worku, Dagnenet Sultan, Nigus Haregeweyn, Mulatu Liyew Berihun, Menber Berihun Nigatu
15:00-15:15	
15:15-15:30	Q & A