

## PROGRAM

May 28, 12:00-14:30: Conference Opening Ceremony and First Working Day

12:00 – 12:45 Conference Opening

David Gurgendidze

• Rector of the Georgian Technical University, Academician

Tamar Lominadze

• Vice-Rector of the Georgian Technical University, Professor

Mikheil Janikashvili

• Head of the Department of Science and Innovations of the Georgian Technical University, Professor

Taliko Zhvania

• Dean of the Faculty of Informatics and Management Systems, GTU

Professor Konstantine Pkhakadze

• Director of the Scientific Research Institute for Cultural Preservation and Technological Development of State Languages, GTU Georgia, Professor

Alexander Maskharashvili

• University of Illinois at Urbana-Champaign, Urbana, Illinois, USA), Assistant Professor, Department of Linguistics

Avtandil Arabuli

• Georgian National Academy of Sciences ; Academician

Irakli Aslanishvili

• Chairman of the IT Committee of the Georgian Business Association

Akaki Saghinashvili

• First Deputy Director of the Georgian Business Association, Co-Chair of the Digital Security Private-Public Partnership Platform (Digital Governance Agency)

David Shekhomedeli

• President of the Georgian Rustaveli Society, poet, public figure

12:40 – 14:00 Conference opening session reports:

12:40 –13:05 Aleksandre Maskharashvili, Assistant Professor, Department of Linguistics, University of Illinois at Urbana-Champaign, Urbana, Illinois, USA

• Goals, challenges, results and recommendations for the full mathematical study and technological support of the Georgian and Abkhazian languages

13:05 – 13:30

Avtandil Arabuli, Georgian National Academy of Sciences

• Content and stages of work related to the implementation of the idea of "Georgian Language Thesaurus"

David Gegia, Scientific Research Institute for Cultural Preservation and Technological Development of State Languages of Georgia, at Georgian Technical University

- 13:30 – 13:55
- Establishment and implementation of a three-stage educational program of “Logic, Language, Artificial Intelligence and Knowledge Engineering” as the main goal of this stage of our institute
  - Konstantine Pkhakadze, Scientific Research Institute for Cultural Preservation and Technological Development of State Languages of Georgia, at Georgian Technical University
- 13:55 – 14:20
- Reasons for the establishment of the Scientific Research Institute for Cultural Preservation and Technological Development of State Languages of Georgia, GTU Georgia, and the immediate goals, or, in short, about the Institute’s projects OTG-II-26-118 and GSDP-26-808
- 14:20 – 14:30
- Closing the first working day of the event, i.e. a discussion of issues
- 14:30 -
- "Buffet" with a friendly wine

11:00 – 11:20

May 29, 11:00-18:00 - Second working day of the conference

11:00 – 14:00 Reports of the morning session of the second conference day: -

Chairman - Mikheil Rukhaia

Gela Lobjanidze, Gocha Nanitashvili, Georgian Technical University

11:00 – 11:20

• Trends and prospects of the digital economy in protecting and strengthening state sovereignty

11:20 - 11:40

11:40 – 12:00

Lali Tibua, TSU Ilia Vekua Institute of Applied Mathematics

• Application of TSR Logic Methods

11:40 – 12:00

Lia Kurtanidze, Georgian National University

• An interpretable model based on fuzzy logic for assessing electromagnetic risks in urban environments

12: 00 – 12:20

12:20 - 12:40 12:00 – 12:20 Maryhan Hazem Anwar Labib Bishara, International Black Sea University

• Connecting Theory and Practice: Scalable Probabilistic ILP for Real-World Artificial Intelligence

12:20 - 12:40 Maryum Hazem Anwar Labib Bishara, International Black Sea University

• From Bayesian Sorting to Unclassified Probabilities: A Scientific Path to Human-Like Artificial Intelligence

12:40 - 13:00 12:40 - 13:00 Rati Skhirtladze (Company “Enagram”), Leila Avidzba (TSU, Institute of Abkhazia), Natia Poniava (TSU Arnold Chikobava Institute of Linguistics)

• The role of digital technologies in the process of teaching the Abkhazian language (level A1)

Mikheil Rukhaia, TSU Institute of Applied Mathematics, Head of the Artificial Intelligence Direction of the University of Business Technologies

13:00 – 13:20 • Using Urango Probabilistic Logic to Understand Natural Language Ambiguity

13:20 – 13:40

13:00 – 13:20

Rita Margania, Bidzina Lemonjava, David Gegia, Konstantine Pkhakadze, GTU Scientific Research Institute for Cultural Preservation and Technological Development of State Languages of Georgia

- The first analysis of the Abkhazian simple sentence based on Shalva Pkhakadze's notation theory mathematical and Konstantine Pkhakadze's logical grammar of the Georgian language

13:40 – 14:00 Konstantine Pkhakadze, GTU Scientific Research Institute for Cultural Preservation and Technological Development of State Languages of Georgia

- Logical Grammar of the Georgian Language as the Foundations of the Logic of the Georgian Language

14:00 – 15:00 Refreshment “Buffet” with coffee, tea and juice

15:00 – 18:00

Second Conference Day Evening Session Reports: -

15:00 – 15:20 Chairman - Besik Dundua  
15:00 – 15:20

Nino Gegenava, Ivane Javakhishvili Tbilisi State University

• The issue of artificial intelligence from the perspective of the history of Western philosophy

Elene Kutateladze, Nino Gegenava, Ivane Javakhishvili Tbilisi State University

15:20-15:40 • Application of the Theories of Philosophers of Language in Translation Practice

Maryam Katamashvili, TSU Institute of Applied Mathematics

15:40 – 16:00 • Generating Regular Languages Using Similarity Relations

16:00 – 16:20

15:40 – 16:00

16:00 – 16:20

Demetre Labadze, TSU Institute of Applied Mathematics

• Formal Modeling of a Group of Drones

David Kurtskhalia, Konstantine Pkhakadze, Luka Pkhakadze, Scientific Research Institute for Cultural Preservation and Technological Development of Georgian State Languages at the Georgian Technical University

16:20 – 16:40 • Georgian Self-Developing Corpus and Review of Systems for Morphological, Syntactic and Logical Analysis of Georgian Texts Embedded in It

Shalva Malidze, Konstantine Pkhakadze, Luka Pkhakadze, Scientific Research Institute for Cultural Preservation and Technological Development of Georgian State Languages at the Georgian Technical University

16:40 – 17:00 • Abkhazian Self-Developing Corpus and Goals and Methods of Developing an Abkhazian Orthographic Speller Embedded in It

David Gegia, Bidzina Lemonjava, Konstantine Pkhakadze, GTU Scientific Research Institute for Cultural Preservation and Technological Development of State Languages of Georgia

17:00 – 17:20 • Comparative analysis of Shalva Pkhakadze's sufficiently general  $\mathfrak{S}$  mathematical language and natural Georgian language as another step towards an isomorphic mathematical theory of Georgian language and thought

Konstantine Pkhakadze, Luka Pkhakadze, GTU Scientific Research Institute for Cultural Preservation and Technological Development of State Languages

17:20 – 17:40 • Georgian-Abkhazian Dynamic Terminological Portal: Goals, Concept, Methods

Besik Dundua, TSU Institute of Applied Mathematics, Kutaisi International University, Associate Professor of Artificial Intelligence

17:40 – 18:00 • Pyrologist: Prolog Extension with Rule-Based Derivation

18:00 - Closing of the Second International Conference of the Scientific Research Institute for Cultural Preservation and Technological Development of State Languages of Georgia “State Languages of Georgia in the Era of Artificial Intelligence and Digital Economy - Cultural and Technological Aspects” i.e. the final discussion of the conference and setting plans for the future