

In the Name of God, the Most Gracious, the Most Merciful

Dear guests, respected professors and researchers, dear students, and distinguished specialists from Iran and abroad,

Welcome to Semnan University.

Today, in this part of our beloved Iran — a land that has always been a cradle of science, thought, and civilization — we have gathered to hold the First International Conference on Underground Energy Storage and Recovery. Your presence here reflects the strong commitment of the scientific community to building a brighter future in the field of energy. Semnan University is proud to host guests from all over the world — a university that, according to statistics, has the highest ratio of students to population in the country. This speaks to the special place of science and knowledge in this land. It is worth noting that this conference is being held in cooperation with Semnan University, Sharif University of Technology from Iran, and Shandong University from China, together with professors from the Chinese Academy of Sciences.

Dear members of the faculty, researchers, and students,

The Faculty of Chemical, Petroleum, and Gas Engineering at Semnan University, as one of the country's leading scientific centers, has always moved at the frontiers of knowledge, relying on the valuable capabilities of its faculty members. The faculty began its activities in 2000 with a bachelor's program in chemical engineering. Today, it hosts students at the bachelor's, master's, and doctoral levels, and has made a significant contribution to the development of the country's oil, gas, and petrochemical industry through its advanced laboratories and fundamental research.

From specialized groups such as Thermodynamics and Catalysis, Process Design, Separation, and Petroleum Exploration, to modern research in Gas Hydrates, Nanotechnology, Modeling, Membrane Processes, Water and Wastewater Treatment, Underground Hydrogen Storage, and Enhanced Oil Recovery — all of these are dedicated to sustainable development and to solving the challenges of the energy industry.

But why this conference, and why today?

The world today faces complex and unprecedented challenges in the field of energy. The need for sustainable resources, the reduction of carbon emissions, and the intelligent use of modern technologies have led us toward underground energy storage solutions. But what makes this issue even more important is the current global situation and the difficulties facing gas transmission. Oil

and gas pipelines that were once the vital arteries of energy now face geopolitical threats, international sanctions, natural disasters, and severe market fluctuations. Transmitting gas from remote fields to consumer markets has become a complex and costly equation. In such circumstances, underground energy storage is not merely a choice — it is a strategic necessity.

The storage of natural gas in underground reservoirs enables us to guarantee energy security during peak consumption periods or when transmission routes are disrupted. Hydrogen storage, as the clean fuel of the future, can reduce dependence on fossil fuels. And the separation and storage of carbon dioxide both helps reduce pollution and assists in enhancing recovery from oil reservoirs. This is the very path on which the world is now focusing, and we too must be pioneers in it, relying on domestic knowledge and capability.

If I were to say just one thing about the importance of this conference, it would be this: its themes are a mirror of the present and future needs of the energy industry.

Dear attendees,

As the Head of the Faculty of Chemical, Petroleum, and Gas Engineering, I am honored to announce that this event — drawing on the scientific capacities of professors and researchers, and relying on specialized laboratories and advanced equipment — is ready to take effective steps in this direction in cooperation with the global community. The capabilities of this faculty, from its diverse disciplines to its specialized laboratories, are a solid foundation for holding this scientific event. We believe that the synergy of knowledge and experience can turn great energy challenges into unique opportunities.

In conclusion,

I would like to thank the respected President of the University for providing the ground for holding this conference at the university. I extend my special gratitude to the honorable Scientific Secretary of this conference, Dr. Nasiri, for all his efforts. I also sincerely thank Dr. Abdi and the executive team of this conference. And finally, I sincerely thank all of you dear ones who have enriched this conference with your presence. I hope this gathering will be the beginning of broader international cooperation, the exchange of knowledge and experience, and the presentation of innovative solutions in the field of underground energy storage and recovery. Let us build together a bright and sustainable future for the world's energy.

With thanks and respect,

Head of the Department of Chemical, Petroleum, and Gas Engineering

Semnan University