

Petroleum Science & Technology – Editorial Team Biographies

Advisory Council

Dr. Anthony R. Kovscek

I am interested in the recovery of unconventional hydrocarbon resources and mitigating carbon emissions from fossil fuels via geological sequestration of greenhouse gases. My research group and I examine the physics of flow through porous media at length scales that vary from the pore to the laboratory to the reservoir. The organizing themes are flow imaging to delineate the mechanisms of multiphase flow (oil, water, and gas) in porous media and the synthesis of models from experimental, theoretical, and field data. In all of our work, physical observations, obtained mainly from laboratory and field measurements, are interwoven with theory.

My teaching interests center broadly around education of students to meet the energy challenges that we will face this century. I teach undergraduate courses that examine the interplay of energy use and environmental issues including renewable energy resources and sustainability. At the graduate level, I offer classes on enhanced oil recovery and the thermodynamics of hydrocarbon mixtures.

<https://profiles.stanford.edu/anthony-kovscek?tab=bio>

Dr. Carlos Torres-Verdin

Carlos Torres-Verdín received a B.Sc. degree in Engineering Geophysics from the National Polytechnic Institute of Mexico, a M.Sc. degree in Electrical Engineering from the University of Texas at Austin, and a Ph.D. degree in Engineering Geoscience from the University of California at Berkeley in 1991. During 1991-1997, he held the position of Research Scientist with Schlumberger-Doll Research. From 1997-1999, he was Reservoir Specialist and Technology Champion with YPF (Buenos Aires, Argentina). Since 1999, he has been affiliated with the Department of Petroleum and Geosystems Engineering of the University of Texas at Austin, where he is currently Full Professor, holds the Brian James Jennings Memorial Endowed Chair in Petroleum and Geosystems Engineering, and conducts research on borehole geophysics, formation evaluation, petrophysics, well logging, and integrated reservoir description. Dr. Torres-Verdín is the founder and director of the Research Consortium on Formation Evaluation at the University of Texas at Austin, which has been in operation for 21 years and is currently sponsored by 20 companies. He has published over 230 refereed journal papers and over 250 conference papers, two book chapters, co-authored one book, is co-inventor of 6 U.S. patents, has served as Guest Editor for *Radio Science*, invited Associate Editor for *Interpretation* (Society of Exploration Geophysicists, SEG), Associate Editor for the *Journal of Electromagnetic Waves and Applications*, *SPE Journal* (Society of Petroleum Engineers, SPE), and *Petrophysics* (Society of Petrophysicists and Well Log Analysts, SPWLA), chair of the editorial board of *The Leading Edge* (SEG), Editor of *Petrophysics* (SPWLA) and Assistant Editor for *Geophysics* (SEG). He is a member of the research committee of the SEG, was a member of the technical committee of the SPWLA during two 3-year terms, was VP of Publications of the SPWLA during two one-year terms, and currently serves as VP Technology of the SPWLA. Dr. Torres-Verdín is recipient of the 2020 Virgil Kauffman Gold Medal from the SEG, 2019 Anthony Lucas Gold Medal from the SPE, 2017 Conrad Schlumberger Award from the EAGE (European Association of Geoscientists and Engineers), 2014 Gold Medal for Technical Achievement from the SPWLA, 2008 Formation Evaluation Award from the SPE, 2006 Distinguished Technical Achievement Award from the SPWLA, Distinguished Member of the SPE, and Honorary Member

of the SEG. He also received the 2003, 2004, 2006, and 2007 Best Paper Awards in *Petrophysics* (SPWLA), Honorable Mention for the 2015 Best Paper published in *Geophysics*, 2020 Best Paper Award published in *Geophysics*, 2006 and 2014 Best Presentation Awards and the 2007 Best Poster Award by the SPWLA, and was designated Distinguished Technical Speaker during 2006-2007 and 2013-2014 by the SPWLA. Dr. Torres-Verdín has supervised 34 PhD and 47 Master's students, conducted numerous industry training courses, co-chaired several technical workshops and conference sessions, and has served as member of multiple SPE, SPWLA, and SEG committees in the past. The internet link <http://sites.utexas.edu/carlostorresverdin/> provides a historical and detailed record of the publication, technical projects, training courses, and research projects undertaken by Dr. Torres-Verdín.

Dr. Cem Sarica

Dr. Cem Sarica, F.H. "Mick" Merelli/Cimarex Energy Professor of Petroleum Engineering at the University of Tulsa (TU), is currently serving as the director of three industry-supported consortia at the TU: Fluid Flow, Paraffin Deposition, and Horizontal Well Artificial Lift Projects. His research interests are production engineering, multiphase flow in pipes, flow assurance, and horizontal wells. He holds BS and MS degrees in petroleum engineering from Istanbul Technical University and a Ph.D. degree in petroleum engineering from TU. He has previously served in various SPE Committees, and he is currently serving as a member of the SPE Production and Facilities Advisory Committee. He was a member of the SPE Journal Editorial Board between 1999 and 2007. He also served as Associate Editor of JERT of ASME between 1998 and 2003. He is a member of the Technical Advisory Committee of British Hydrodynamics Research Group (BHRg) Multiphase Production Conferences. He served as the Technical Program Chair of BHRg 2008 and 2012 Conferences. He is the recipient of the 2010 SPE International Production and Operations Award. He is recognized as a Distinguished Member of SPE in 2012. Cem received SPE John Franklin Carll Award and SPE Cedric K. Ferguson Certificate in 2015.

Dr. Catalin Teodoriu

Dr. Teodoriu is a professor of Petroleum Engineering at The University of Oklahoma, Norman, Oklahoma. Prior to joining the OU, he was assistant professor at Texas A&M and Head of the Drilling, Completion and Workover Department at the Clausthal University of Technology, Germany. He has more than 22 years of experience in the petroleum industry and academia, with key qualifications and research in drilling and production equipment, drilling technology, integrated computer-aided analysis, well completion, testing of OCTG, design of downhole and surface equipment, software development, EOR, geothermal wells, and in the design of laboratory-specific equipment (i.e. high-pressure testing, large scale testing equipment for multiphase flow and drilling process simulation). He is specialized in developing new threaded connections for OCTG as well as an expert on drilling problems and failure analysis. Some of his recent research areas at the OU includes the largest drilling vibration setup worldwide, development of cement repository for long term investigations as well as geothermal well construction and well integrity as well as development of complex mechatronic systems designed to support AI and Machine Learning applications. He is the author of more than 300 publications, from which 85 peer-reviewed articles and two book chapters. He was awarded, among others, the SPE Drilling Engineer Award and Outstanding Reviewer for SPE Journals. He is also well recognized in delivering customized industry courses covering drilling, completion, well integrity and geothermal topics.

Dr. Martin Blunt

Professor Blunt's research interests are in multiphase flow in porous media with many applications including oil and gas recovery, geological carbon storage, and contaminant transport, clean-up in polluted aquifers and fibrous porous materials. He performs experimental, theoretical and numerical research into many aspects of flow and transport in porous systems, including pore-scale imaging, modelling and analysis of displacement processes, and large-scale simulation using streamline-based methods. He is Editor-in-Chief of the journal *Transport in Porous Media*. He has over 250 scientific publications. He is a Fellow of the Royal Academy of Engineering.

<https://www.imperial.ac.uk/people/m.blunt>

Dr. Ioannis Economou

Professor Ioannis G. Economou holds a Diploma in Chemical Engineering from the National Technical University of Athens, Greece (1987) and a PhD also in Chemical Engineering from The Johns Hopkins University in Baltimore, Maryland, USA (1992). He was a post-doctoral researcher in Delft University of Technology in the Netherlands (1993 – 94) and in Exxon Research and Engineering Company, in New Jersey, USA (1994 – 95). From 1995 to 2009, he worked at the National Center for Scientific Research “Demokritos” in Athens, Greece where he held the position of Director of Molecular Thermodynamics and Modeling of Materials Laboratory from 2003 to 2021 (while on leave from 2009 to 2015, and 2016 to 2021). From 2009 until 2012, he was the Associate Provost for Graduate Studies and Professor of Chemical Engineering at the Petroleum Institute, Abu Dhabi. In 2013, he was appointed Professor of Chemical Engineering at Texas A&M University at Qatar, in 2017 he was appointed Associate Dean for Academic Affairs and in 2021 Senior Associate Dean for Academic Affairs and Graduate Studies.

He held various visiting / research positions including research fellow in University College London (1994 – 96) and Princeton University (2004 and 2015), and visiting Professor in the Technical University of Denmark (2001 and 2006 - 07) and the American College of Greece (2007 - 09). Furthermore, he has consulted extensively for major oil and chemical companies in North America, Europe and Middle East.

Prof. Economou has supervised 18 MSc students, 14 PhD students and 18 post-docs, he has published 225 peer-reviewed research papers in leading journals in Chemical Engineering, Physical Chemistry and Polymer Science. In addition, he co-authored 10 book chapters and co-edited 1 book entitled “Natural Gas Processing from Midstream to Downstream” (Wiley, 2019). His H-index is 52 according to Scholar Google. He has given approximately 350 presentations in conferences, Universities and industrial research centers worldwide.

Prof. Economou’s research interests are related to the development and validation of multi-scale thermodynamic models for the oil & gas, chemical and pharmaceutical industry. In recent years, he developed models for CO₂ capture, transportation and sequestration technologies, shale gas technology, aqueous systems, green solvents, pharmaceuticals, and soft materials including polymers, ionic liquids, metal organic frameworks, etc.

From 2007 to 2014, he was the Founding Chairman of the Working Party on Thermodynamics and Transport Properties of the European Federation of Chemical Engineering. He is Editor of *Fluid Phase*

Equilibria, and member of the Editorial Board in *Journal of Chemical and Engineering Data*, and of the Advisory Council in *Petroleum Science and Technology*.

Additional information can be found here:

<https://www.qatar.tamu.edu/programs/chemical-engineering/faculty-and-staff/dr.-ioannis-economou>

<http://scholar.google.com/citations?user=Elcl9NwAAAAJ&hl=en>

ORCID: <https://orcid.org/0000-0002-2409-6831>

Associate Editors

Dr. Qingwang (Kevin) Yuan

Dr. Qingwang Yuan is currently an Assistant Professor in the Department of Petroleum Engineering at the Texas Tech University. His research interests include hydrogen production from fossil fuels on the ground and from subsurface petroleum reservoirs, CO₂ sequestration, hydrogen geological storage, enhanced oil recovery, and modeling of single and multiphase flows in subsurface porous media. He also worked on the geological compaction, petroleum generation, adsorption, and hydrocarbon expulsion from source rocks in basin and petroleum systems modeling. Dr. Yuan received the 2017 Mitacs Award for Outstanding Innovation – Postdoctoral from Mitacs Canada and the 2018 InterPore – PoreLab Award for Young Researchers from the International Society for Porous Media in USA. He worked as a Postdoctoral Fellow in the Department of Energy Resources Engineering at the Stanford University between 2017 and 2019, and a reservoir engineer from 2014 to 2016 at the CNOOC Research Institute, Beijing, China. He holds B.Sc. and M.Sc. degrees in Petroleum Engineering from the China University of Petroleum and a Ph.D. degree in Petroleum Engineering from the University of Calgary, Canada.

Dr. Renfeng Yang

Renfeng Yang, Head of Research Institute of Development, CNOOC Research Institute Co. Ltd. Expert of CNOOC Research Institute Co. Ltd. , Outstanding Young Scientist of China Energy Society, Young Science and Technology Award Winner of Sun Yueqi Energy Foundation. His Fields of specialty include basic theory of seepage flow mechanic, seepage flow mechanic theory, numerical simulation and development technology of low permeability reservoir, heavy oil and unconventional oil and gas reservoir, reservoir damage mechanism and application, data mining and artificial intelligence in gas and oil reservoir development.

Dr. Rouzbeh Ghanbarnezhad Moghanloo

Rouzbeh G.Moghanloo is currently an Associate Professor and the graduate liaison for natural gas engineering and management program at the Mewbourne school of petroleum and geological engineering at The University of Oklahoma. Dr. Moghanloo is author and co-author of 120 refereed-journal and conference articles and the editor of a multi-author volume. Rouzbeh is a professional member of SPE and ACS and recipient of 2018 SPE Mid-Continent Regional Reservoir Description and Dynamics Award and 2016 ACS-PRF award. Dr. Moghanloo received his PhD in petroleum engineering from The University of Texas at Austin and his Bachelor and Master of Science degrees both in chemical engineering

from Amirkabir University of Technology. His research interests spans over applied topics such as enhanced oil recovery, geological storage of CO₂, asphaltene deposition, to basic research on modeling of multiphase flow and particulate flow systems. He has also served as technical advisor for several companies. Rouzbeh is a member of several associations including SPE and ACS and holds 3 patents and serves as Associate Editor for Elsevier's Journal of Natural Gas Science and Engineering.

Prof. Nam Nguyen-Dang

Dr. Nam Nguyen-Dang is an expert in metallurgy – metals and alloys, corrosion science, electrochemistry and nano-photoelectrochemistry. He has worked on synthesis of compounds for corrosion inhibition and studied them using specialized techniques in materials characterization. Apart from that he is also well versed in use of advanced manufacturing techniques for development of greener, sustainable, and durable materials including but not limited to new alloys, corrosion inhibitors, bio-inspired and hybrid materials. His research career started with obtaining master's and PhD degrees from Sungkyunkwan University (South Korea, 2011) and then moved to Deakin University (Australia, 2012) for prestigious Alfred Deakin Research Fellowship. Following this he went on to become the Head of the Science and Technology department at PetroVietnam University (2014). He is currently an associate professor at Feature Materials and Devices Lab. (leader of Applied Electrochemistry and Corrosion Technologies), and Deputy director of Institute of Fundamental and Applied Sciences, Duy Tan University.

Dr. Hadi Belhaj

Dr. Hadi A. Belhaj is a petroleum engineering faculty at Khalifa University (KU), Abu Dhabi, UAE teaching varieties of graduate and undergraduate courses ranging from reservoir engineering to unconventional reservoir characterization and modeling to drilling engineering to petroleum economics and risk analysis to hydrogen resourcing, storage, and recovery to CCS. Dr. Belhaj has over 40 years of combined industrial and academic experience with key qualifications and research achievements in reservoir engineering, reservoir simulation, modeling fractured reservoirs, EOR, reservoir stimulation, sand production, unconventional reservoirs, and decarbonized fossil fuels. Geographically, his experience spread over North America, Europe, North Africa, Asia, and the Middle East. Prior to KU/PI merging, Dr. Belhaj was engaged with the Petroleum Institute, Texas Tech University, and Dalhousie University, respectively. From 1982 until 2000, Dr. Belhaj worked with Schlumberger and the Libyan National Oil Corporation (LNOC), respectively. Dr. Belhaj is a Distinguished Member of the Society of Petroleum Engineers (SPE). For his unwavering 40-year-long-continued outstanding services with passion, commitment, and dedication to the SPE and its members at all levels, the SPE honored Dr. Belhaj with the 2021 SPE Distinguished Service Award. Dr. Belhaj also is the recipient of 2013/2020 SPE Regional Distinguished Achievement for Petroleum Engineering Faculty Award and the 2019 SPE Regional Reservoir Description and Dynamics Award. He is currently a member of the JPT Editorial Committee and SPE-ATCE Technical Program Subcommittee and has served on numerous other SPE and non-SPE educational, research, and judging-related committees as well as conference/workshop/forum programming and organizing committees. Dr. Belhaj has contributed a number of consortium research proposals dealing with petroleum engineering and energy exploitation challenges generating more than 17 Million dollars of research grants. Dr. Belhaj published more than 130 refereed journal and conference articles and signed a contract with Elsevier Publishing to write a series of seven-volume-book on the characterization and modeling of unconventional reservoirs, the first volume on tight oil UCRs is due by end of 2022. Dr. Belhaj is a member of other professional societies and organizations around the

globe; the Society of Special Core Analysts (SCA), the International Society for Porous Media, and the OMAE-ASME are among them. Dr. Belhaj currently serves as the Associate Editor for top petroleum engineering journals.

Dr. Taniya Kar

Taniya Kar obtained her Bachelors degree in Chemical Engineering from National Institute of Technology, Raipur, India; and her Masters and PhD in Petroleum Engineering from Texas A&M University. Currently, she is working as a Research Scientist at Reservoir Engineering Research Institute, California.

Her research interests include fluid flow in porous media; fluid interfacial properties; carbon dioxide sequestration; chemical enhanced oil recovery, fluid emulsion properties and applications, and flow assurance. Her studies have been represented in 13 peer-reviewed publications till date, and she also has 15 conference presentations to her credit.

She is a recipient of Graduate Research Fellowship as well as the Faculty Award of Excellence from Harold Vance Dept. of Petroleum Engineering, Texas A&M University.

Dr. Ufuk Kılıçaslan

Dr. Ufuk Kılıçaslan has been working at Turkish Petroleum Corporation (TPAO), Ankara, Turkey for more than 10 years. He is currently Production Enhancement Manager at company's onshore assets, responsible for reservoir management of well-known Bati Raman CO₂-EOR project, acid and proppant fracturing, and field trial of new technologies. His main focuses are reservoir simulation, reservoir surveillance, waterflooding, polymer gel injection, CO₂-EOR, CCUS, low-cost EOR techniques and unconventional reservoirs. He received his Ph.D. and B.Sc. degree from Middle East Technical University, Ankara, Turkey, and his M.Sc. degree from Texas A&M University, College Station, US, all in petroleum engineering.

Rita Okoroafor

Dr. Rita Esuru Okoroafor is an Assistant Professor at the Harold Vance Department of Petroleum Engineering, Texas A&M University. Dr. Okoroafor's research involves the application of Petroleum Engineering science in low-carbon energy technologies such as geothermal energy, CO₂ storage and underground energy storage. Before resuming the position in academia, Dr. Okoroafor was a Principal Reservoir Engineer in the oil and gas industry, having gained over 13 years of work experience. Dr. Okoroafor is an author of six journal papers, over twenty conference papers, and two patents. She is also a recipient of the Society of Petroleum Engineers (SPE) Africa Region Reservoir Dynamics and Description Award (2017).