



Prof. Tarkeshwar Kumar, born in 1956 in the State of Bihar, had his schooling in the prestigious Netarhat Residential School in 1972, having secured 8th rank in Bihar Higher Secondary Board Examination.

Prof. Kumar obtained his BTech in 1977 and MTech in 1984 in Petroleum Engg both from Indian School of Mines, Dhanbad. He was awarded PhD degree in Petroleum Engg from Heriot-Watt University, Edinburgh, UK in 1988 under prestigious Commonwealth Academic Staff Scholarship award.

Prof. Kumar served Assam Oil Company, Digboi, a subsidiary of Burmah Oil Company, UK from 1977 to 1981 in various capacities before joining Indian School of Mines as Lecturer in 1981. He became Professor on 17th January 1992 and served as Head of Department and Dean before becoming Director of ISM on 9th August 2005, the post which he held till 3rd July 2011. He also held additional charge of Director, NIFFT, Ranchi from 11th April 2008 to 11th July 2011. On deputation from ISM Dhanbad, Prof. Kumar assumed the charge of Director, National Institute of Technology, Durgapur (W.B.) on 11th July 2011.

Prof. Kumar is member of professional bodies such as IEI, MGMI, ISTE, IIPA, IGC, SPG, CSI and SPE International USA. He has also served as expert member of various selection committees and technical committees of UPSC, DST-TIFAC, AICTE, Central and Jharkhand Government. He has been member of academic councils of UPES, Dehradun and BHU, Varanasi and also member of BOG of BIT, Sindri and Institute of Environment Management and Studies, Jamshedpur. He has been Visitor's Nominee, i.e. nominee of President of India of IIT, Kharagpur and IIT Bhubaneswar.

Prof. Kumar has been a popular teacher in training programmes conducted for the executives of oil, gas and other related industries and has also

coordinated a number of such training courses for executives of petroleum industry. He has been reviewer and technical editor of journals published by CSIR, IEI, MGMI, SPE-USA and Canadian JPT.

Prof. Kumar's areas of interest of research include petroleum production and reservoir engineering, modeling of artificial island for oil field development, oil field scaling and corrosion, testing of oil and gas wells, economic evaluation of petroleum venture etc. He has supervised many MTech and PhD theses. He has to his credit over hundred national and international technical publications and a patent on plant based corrosion inhibitor for protection of steel.

Prof. Kumar is a recipient of the Prestigious **National Mineral Award-2008** by the Ministry of Mines, Govt. of India, in recognition of his significant contribution in the field of Oil and Gas. He also delivered the prestigious second **Prof. Prem Bahadur Verma Memorial Lecture (IGC)** at National Geophysical Research Institute, Hyderabad, during Sixteenth Biennial Convention of Indian Geological Congress on 4th February, 2009. He has visited countries like UK, USA, Kuwait, Turkey and China for technical interaction and presenting papers.

As Director of the ISM he has been involved in the institution building. Several new academic programmes relating to mining, mineral, petroleum, environmental, electrical, chemical engineering, earth and applied sciences have been started in ISM during his tenure as Director.

Recognizing the contributions of Prof. Kumar, "**New Global Indian**", an international magazine has published his profile in its February-March, 2010 issue under the heading 'Fuelling Education, Igniting Inspiration'. Prof. Kumar has also been profiled in "**Chemical Business**" in its Vol. 25, No. 1, January 2011 issue under the heading 'Personality of the Month'. His contributions to the advancement of engineering education and research are commendable.

ETV Bihar/Jharkhand telecasted a programme on "Life & Achievement" of Prof. Kumar on 23rd April 2011. He also serves as non-official part-time Director on the Board of Directors of Uranium Corporation of India(UCIL) and Neyvelli Lignite Corp Tamilnadu Power Ltd (NTPL).

**RESUME
OF
PROF. (Dr.) T. KUMAR**

1. Full Name: PROF. TARKESHWAR KUMAR

2. Date of Birth: 18th January 1956

**3. Current Position and
Mailing Address:**

Director,
National Institute of Technology,
Durgapur – 713209, West Bengal
INDIA
Email: director@admin.nitdgp.ac.in

4. Educational Qualification:

Sl No.	Degree	Board/Univ	Year of Passing	Division/Class (% of Marks)	Remarks
1	Higher Secondary from Netarhat Residential School, Netarhat, Dist- Latehar, Via-Ranchi, Jharkhand	Bihar School Examination Board, Patna	1972	1 st Division (79.5%)	8 th rank in the H. S. Board Examination
2.	Bachelor of Technology (Petroleum Engineering)	Indian School of Mines, Dhanbad (Deemed University)	1977	1 st Class (76.5%)	Dr. Dhar Prize for the Best Science student in the first year and second rank in the Final year
3.	Master of Technology (Petroleum Engineering)	- do -	1984	1 st class	By research
Title of Thesis: “STUDY OF THE EFFECT OF TEMPERATURE ON THE RHEOLOGICAL PROPERTIES OF OILFIELD EMULSIONS”					
4.	PhD (Petroleum Engineering)	Heriot-Watt University, Edinburgh, UK	1988	Under the Commonwealth Academic Staff Scholarship Scheme, UK	
Title of Thesis: “MODELING OF FORMATION DAMAGE DUE TO PARTICLE INVASION IN RELATION TO WATER INJECTION SCHEMES”					

5. Industrial and Teaching Experience:

Sl. No.	Name of the Company/ Institute	Designation	From	To	Pay-Scale
1.	Assam Oil Company Ltd. Digboi, (Subsidiary of Burmah Oil Co., UK)	Petroleum Engineer Trainee	08.08.1977	07.08.1978	Rs.750/-
2.	- do -	Assistant Engineer (Petroleum)	08.08.1978	31.12.1979	Rs.850-1550/- (Rs. 950/- basic + DA etc.)
3.	- do -	Transport Controller	01.01.1980	06.06.1981	Rs.1050-1800/- (Rs. 1200/-basic + CCA+DA etc)
4.	Indian School of Mines, Dhanbad	Lecturer (Petroleum Engg.)	22.06.1981	16.01.1984	Rs.700-1600/- (Rs.1350/- basic + CCA+DA etc.)
5.	- do -	Assistant Professor (Petroleum Engg)	17.01.1984	22.01.1992	Rs.3700-5700/- (Rs.4575/- basic + CCA+DA etc.)
6.	- do -	Professor (Petroleum Engg)	23.01.1992	Continuing	Rs.18400-22400/- (Rs.22,900/- basic + CCA+ DA etc.)
7.	- do -	Head of the Department (Petroleum Engg)	24.01.1992	23.01.1998	-
8.	- do -	Dean (Student Affairs/ Students Welfare)	01.07.2001	08.12.2003	-
9.	- do -	Dean (Academic & Research)	09.12.2003	11.08.2005	-
10.	- do -	Director	09.08.2005	03.07.2011	Rs. 75000/- (fixed) + Sp. Pay +DA etc.
11.	National Institute of Foundry & Forge Technology, Ranchi	Director	11.04.2008	11.07.2011	Additional Assignment
12.	National Institute of Technology, Durgapur	Director	11.07.2011	Continuing	Rs. 75000/- (fixed) + Sp. Pay +DA etc.

6. Research Experience:

Sl. No.	Institution/Organization	Duration	Remarks
1.	Indian School of Mines, Dhanbad	1982-1984	Research work in connection with M.Tech degree by research
2.	Heriot-Watt University, UK	1985-1988	Research work in connection with PhD research
3.	Indian School of Mines, Dhanbad	1989-2011 Onwards	Research work in connection with development of shallow offshore fields, formation damage-network modeling of porous media, Oil field scale control, Development of Corrosion Inhibitor, Enhanced Oil Recovery etc.

Patent Granted: Development of Effective and Environment Friendly Plant Based Corrosion Inhibitors for Protection of Steel Casing and other Equipment used in Acidic Environment., Patent Application No.00576/KOL/ 2004A, Filing Date 22.9.2004, Publication Date 17.11.2006, Inventors: Tarkeshwar Kumar, Sunkari Vishwanatham, Emranuzzaman.

7. Visits abroad:

- (i) 3 years at Heriot-Watt University, Edinburgh for completing PhD under Commonwealth Academic Staff Scholarship Scheme, UK (1985-88)
- (ii) 2 weeks to USA to present SPE paper No. SPE-17148 titled “The Value and Analysis of Core-Based Water Quality Experiments as Related to Water Injection Schemes” in the SPE Formation Damage Control Symposium during February 8-9, 1988 held in Bakersfield, California, USA and visited various laboratories connected with Petroleum Engineering research work at Core Lab. Inc. Bakersfield (California); Science Application Inc. Las Vegas (New Mexico); Sandia National Lab, Albuquerque (New Mexico); Phillips66 Production Research Lab, Bartlesville (Oklahoma); Amoco Production Research Lab., Tulsa (Oklahoma); Centre for Formation Damage Control studies, Department of Petroleum Engineering, University of Texas at Austin (Texas); and Centre for Earth Science and Engineering (Rock Mechanics Research), Department of Petroleum Engineering, University of Texas at Austin, Texas.
- (iii) One week to USA to present a SPE paper No. SPE-18203 titled “A New Approach for Mathematical Modeling of Formation Damage Due to Invasion of Solid Suspension” in the SPE Annual Conference & Exhibition during October 2-5, 1988 held in Houston, Texas USA.
- (iv) One week to Kuwait to present a technical paper titled “Investigation on the Effect of Various Types of Organic Inhibitors on Inhibition of Oilfield Scales” in the Second Kuwait International Petroleum Conference & Exhibition during Dec. 10-12, 2005 held in Kuwait City, State of Kuwait.
- (v) Four days to Kemer-Antalya, Turkey for attending 21st International Mining Congress & Exhibition of Turkey and delivering Keynote Address titled “Sustainable Development in Mining Industry : An Indian Perspective” during May 6-8, 2009.
- (vi) Five days to Beijing, China for attending BITs 1st Annual International Congress & Exposition of Oilfield Chemicals and delivered Keynote address titled “Challenges in Enhanced oil Recovery by Chemical Flooding” during Nov. 15-17, 2010.

8. Fellowship/Membership of Reputed Professional Institute/Organization:

- i) Life Fellow, The Institution of Engineers (India), **FIE**
- ii) Life Member, Mining Geological & Metallurgical Institute of India, **MMGI**
- iii) Life Member, Indian Society for Technical Education, **ISTE**
- iv) Life Member, Indian Institute of Public Administration, **IIPA**
- v) Life Member, Indian Geological Congress, **IGC**
- vi) Life Member, Society of Petroleum Geophysicists, **SPG**
- vii) Member, Society of Petroleum Engineers International (USA), **SPE**

9. LIST OF R&D/PhD/MTech PROJECTS UNDER THE GUIDANCE OF PROF. T. KUMAR:

A: COMPLETED

- i) Modeling of Artificial Island to Develop Shallow Oilfields (PhD research scholar M. K. Jha). UGC-ISM Project No. 1/139, 1991
- ii) Substitution of Diesel by Natural Gas in Internal Combustion Engines (MTech external research scholar Mr. K. Vidyasagar) 1993
- iii) Application of Pressure Derivative Analysis to Study the Effect of Boundaries on Late Time Transient (MTech external research scholar - Mr. B. Choudhuri) 1993
- iv) Optimum Development of Marginal Oil and Gas Fields Using Mathematical Programming Models. (MTech external research scholar – Mr. A. M. Siddiqi) 1994
- v) Performance Prediction of Horizontal Wells Under Depletion and Active Water Drive Conditions in Heterogeneous Carbonate Reservoirs in Bombay Offshore Area (MTech external research scholar - Mr. K. N. Jha) 1995
- vi) Development of an Expert System on Horizontal Well Technology (MTech part time research scholar - Dr. A. K. Pathak) 1995
- vii) Performance of a Reservoir Developed with Horizontal Well and its Comparison with Vertical Counterparts. (MTech external research scholar - Mr. A. K. Maji) 1997.
- viii) Effective Reservoir Management under Technological and Logistical Constraints for Marginal Offshore Oil and Gas Fields, (MTech external research scholar - Mr. K. K. Jha) 1997.
- ix) Study of Characterization of Reservoir Rocks and Their Influence in EOR Processes. (MTech dissertation scholar - Mr. M. Muthumanikam) 1997.
- x) Study of Gas Flow Behaviour through Gas Lift Valve under Dynamic Flow Conditions (MTech external research scholar - Mr. B. Sarkar) 1998.
- xi) Polysaccharide Based Graft Copolymers for Enhanced Oil Recovery Operations (MTech dissertation scholar - Dr. G.P. Karmakar) 1998.
- xii) Optimization Studies of Water Injection Profiling in a Multi-layered Carbonate Reservoir Offshore, Bombay (MTech external research scholar - Mr. Pankaj K. Shah) 1998.
- xiii) Characterization of Naturally Occurring Surface Active Agents in Indigenous Crude Oils and Their Effect on Fluid Flow Through Porous Media (UGC Sponsored research project, PI- Dr. A. K. Pathak, Co-Investigator-Prof. T. Kumar, JRF- S. N. Mishra) 1998.
- xiv) Enhanced Oil Recovery Using Grafted Polysaccharides (AICTE sponsored project, PI- Dr. G. P. Karmakar, Co-Investigator- Prof. T. Kumar) 1998.
- xv) Corrosion Protection of N80 Steel Casing during the Acidization of an Oil well (MTech dissertation scholar – K. Srinivas Rao) 2000.
- xvi) Design of Hydrofracturing Treatment for Enhancing Well Productivity in Siltstone/Sandstone Pay Zones Underlain with Coalbed (MTech external research scholar - V. K. Prasad) 2000.
- xvii) Study of Corrosion Inhibitors for Structural Steel in Oil Wells - a CSIR Sponsored Project (PhD research scholar - Emranuzzaman) 2002.
- xviii) Corrosion Protection of N-80 Steel in Acid Environment with Crude Oil by Some Commercial Inhibitors (MTech dissertation scholar – S P Karmakar) 2002.
- xix) Problem of Scale in Oilfields of India - an ISM - UGC Sponsored Project (PhD Research Scholar - P.K. Choudhary) 2003.
- xx) Simulation of Production Profile of CBM Wells (MTech dissertation scholar – Anuj Bajpai) 2004.
- xxi) Study of Insitu Combustion EOR Method with Computer Modelling for Indian Oilfield Conditions (MTech dissertation scholar – Rajasekharan S.) 2004.
- xxii) Design of Oilfield Production and Surface Processing Systems and Studies on Related Factors (MTech dissertation scholar – Amit Jaisawal) 2005.
- xxiii) Studies on Inhibition of Calcium Carbonate Scale Formation in Oil Wells – ISM Research Project (PhD Research Scholar – Shiv Shankar Kundu), 2009.

- xxiv) Studies on Improved Recovery of Oil by Surfactant Induced Wettability Alteration and Interfacial Tension (IFT) Reduction – UGC sponsored Research Project (PhD Scholar, Mr. Achinta Bera), 2010.
- xxv) Studies on Control of Scale Depositions in Indian Oil Wells – CSIR sponsored Research Project, 2010.

10. Honours/achievements/membership of Committees/Councils outside:

- Recipient of [National Mineral Award-2008](#), awarded by Ministry of Mines, Govt. of India on February 27, 2010.
- Editor, “India Mineral Conclave”, organized by Indian School of Mines Alumni Association in association with Directorate General of Mines Safety and Central Institute of Mining and Fuel Research, Dhanbad during 5-6 February, 2010.
- Nominee of Visitor (President of India) in IIT, Kharagpur, with effect from December 18, 2006.
- Member, Central Geological Programming Board and also member of Sub-Committee V : Energy, Minerals and Resources (Coal, Lignite & Geothermal), Ministry of Mines, Govt. of India, from April, 2009-continuing.
- Member, Advisory Board of Indian Bureau of Mines, Nagpur from 2009-continuing.
- Member, Jharkhand State Geological Programme Council, Ranchi, with effect from August 23, 2005.
- Member, Jharkhand State Mineral Advisory Committee, Ranchi, with effect from August 11, 2005.
- Member, Academic Council, Banaras Hindu University, Varanasi with effect from May, 2009.
- Member, Academic Council of the University of Petroleum and Energy Studies (UPES), Energy Acres, P.O. Bidholi, via Premnagar, Dehradun-248007, with effect from April 4, 2006.
- Member, General Body of the Bihar Council of Science and Technology, Patna, with effect from May 16, 2007.
- Member, Board of Governors of BIT, Sindri, with effect from November 2006.
- Patron, The Institute of Company Secretaries of India, Dhanbad Satellite Chapter of EIRC of ICSI, North End Convent, Police Line, Dhanbad, with effect from October 16, 2006.
- Member, Governing Body, Institute of Environmental Management and Studies, Jamshedpur with effect from 30.9.2005.
- Council Member, Mining, Geol. & Metallurgical Institute of India during 1994-95, 1995-96, 2000-2003, 2009-continuing.
- Co-chaired Session – II on “Centre State Cooperation in Regulation of Mineral Resources” (with Chief Secretary, Govt. of Orissa as the Chair) at the Eastern and Central Region Workshop on Centre-State Cooperation on Combating Naxalism and Natural Resources, Environment, Land and Agriculture organized by Commission on Centre-State Relations, New Delhi held at Bhubaneswar on 20-21 January, 2009.
- Member, National Advisory Committee for the National Workshop on “Ensuring Quality Technical Education In Eleventh Five Year Plan”, BIT, Mesra, Ranchi (March 25-26, 2008).
- Member, National Level Advisory Committee for the National Conference on Problems, Practices and Prospects in Power Distribution System, organized by Department of Electrical Energy, Punjab Engineering College, Deemed University, Chandigarh (December 2007-January 2008).
- Member, National Advisory Committee for the 34th National Conference on Fluid Power, organized by BIT, Mesra, Ranchi (10-12 December, 2007).
- Member, Advisory Committee for the National Seminar on Natural and Industrial Disasters Mitigation and Management, organized by The Institution of Engineers (India), Dhanbad Local Centre and DGMS, Dhanbad, with effect from October 27-28, 2007.
- Member, Divisional Railway Consumer Consultative Committee, East Central Railway, Dhanbad, with effect from 01.08.06 to 31.07.08.
- Chairman, Organizing Committee, All India Seminar & Exhibition on Advances in Computer and Information Technology (ACIT-2006), organized by Institution of Engineers (India), Dhanbad Local Centre at ISM University, Dhanbad (11-12 March, 2006).

- Member, the monitoring committee of TIFAC-CORE (Technology Information Forecasting & Assessment Council - Centre of Relevance & Excellence) of Dibrugarh University on “Clastic Petroleum Reservoir Engineering” under DST, Min. of Sc. & Tech., Govt. of India, since 2001 – 2009.
- Ambassador, of Heriot-Watt University Watt club (U.K.) since 1998 – continuing.
- Member, Programme Committee, SPE India Oil & Gas International Conf. & Exhibition 7-9 April, 1998.
- UPSC Selection Committee member for Joint Advisor (Pet)/Planning Commission during 1997-98 and Civil Services Personality Test Board, 2010.
- Member, AICTE Expert Committee for evaluation of MTech Petroleum Engg. at MIT Pune June 1996.
- Member, AICTE Expert Committee for evaluation of academic programmes of Polytechnic at Barauni and Purnea, Bihar.
- Member, Panel of Assessors, MGMI, during 1993-94, 1994-95, 1997-98, 1998-99, 2003-04 & 2004-05.
- Technical Editor, SPE Reservoir Evaluation and Engineering Journal, USA.
- Reviewer, IE Chem. Engg. Journal since 1997 – continuing.
- Reviewer, Journal of Science & Industry Research, CSIR during 1996.
- Technical Editor, Canadian Journal of Petroleum Technology w.e.f. 2009.
- Ph.D. examiner, IIT Mumbai and NITIE, Mumbai 1996.
- Listed in the Financial Times (FT) Oil and Gas 1999 year book and selected for inclusion in FT who’s who in world Oil and Gas 2000, London (U.K.).
- Bibliographic entry the INDOCEAN database by NICMAS – National Information Centre for Marine Sciences of NIO, GOA, 1998.
- Selected for inclusion in Rifacimento International ASIA/PACIFIC who’s who New Delhi 1999.
- Selected for inclusion in Marquis who’s who in the world 2000 N.J. (USA).
- Served as Head of Department of Petroleum Engineering from 24.1.92 to 23.1.98 during which coordinated a grant-in-aid project from Oil Industry Development Board (OIDB) to the Department worth Rs. 185 lakhs.
- Attended several short courses of one to two weeks' duration organized by Indian as well as foreign experts in the field of Management and Petroleum Engineering. This includes basic management, preventive maintenance, water shut-off and stimulation of oil and gas wells, enhanced oil recovery and well testing.
- Coordinated several short courses for oil industry executives ranging from one week to 12 weeks and delivered lectures in them. Supervised several PhD/MTech research projects.
- In addition published/presented more than hundred research papers in National/International Conferences/ Seminars and completed various research projects as well.

11. Delivered addresses/special lectures as Chief Guest/Guest of Honour/Keynote Speaker.

- i. Delivered special lecture on “*Oil Conservation Measures in Petroleum Industry*” at the National Conference on Indian Mining Industry: Latest Development and Challenges (in Hindi) held at CMRI, Dhanbad on 09 May, 2006 as Guest of Honour.
- ii. Delivered special lecture on “*Role of Oil & Gas in the Energy Security of India*” at Central Mechanical Engineering Research Institute (CMERI), Durgapur as Guest of Honour as part of Golden Jubilee Celebration of the CSIR on 11 April, 2007 and paper published in the Golden Jubilee commemorative volume of the Institute.
- iii. Delivered special lecture on “*Role of Fossil Fuel on the Energy Security of India*” as Chief Guest in CIMFR, Dhanbad Campus and Digwadih Campus on the occasion of Golden Jubilee celebration of CSIR on October 26, 2007.

- iv. Delivered special lecture on “*Health & Safety of Miners – Outlook for India*” as Chief Guest in the Workshop on Health & Safety in Asian Mines organized by DGMS, Dhanbad, January 21-22, 2008.
- v. Delivered address as Guest of Honour on ‘*Micro & Small Scale Industries*’ in All India Seminar on Status, Constraints and Prospects of Small Scale Industries in Jharkhand’, organized by The Institution of Engineers (India), Dhanbad Local Chapter during January 28-29, 2008.
- vi. Delivered Convocation Address as Chief Guest on ‘*Challenges and Issues Concerning Environmental Management and Technological Solutions*’ at the Institute of Environment Management and Studies, Jamshedpur, 5th May, 2008.
- vii. Delivered 2nd Prof. Prem Bahadur Verma Memorial Lecture on ‘*Energy Security of India Through Optimum Development of Fossil Fuels and Alternative Energy Resources*’ during Sixteenth Biennial Convention of Indian Geological Congress held at National Geophysical Research Institute, Hyderabad, on 4th February, 2009.
- viii. Delivered Keynote Address on ‘*Sustainable Development in Mining Industry : An Indian Perspective*’ at the 21st International Mining Congress & Exhibition of Turkey held at Kemer-Antalya, Turkey during May 6-8, 2009.
- ix. Delivered Keynote Address on ‘Challenges in Enhanced oil Recovery Due to Chemical Flooding’ at the 1st BITS International conference on Oilfield chemicals held at Beijing, China during Nov. 15-17, 2010.

12. Publications.

More than hundred publications including papers published in international/national journals and papers presented/published in the proceedings of international/national seminars/conferences/workshops are given in the list below.

(*Indicates International Publications)

- 1. Kumar, T. : “*Some Rheological Properties of Emulsions of Refinery Cuts with Water,*” The New Sketch, Dhanbad (May 24, 1982).
- 2. Kumar, T.: “*Importance of Crude Oil Emulsion for the Petroleum Industry,*” Souvenir, National Seminar on Problems of Production - Onshore and Offshore held at Indian School of Mines, Dhanbad (21-23 October 1984).
- 3. Kumar, T. and Srini-Vasan, S.: “*Effect of Temperature on the Rheological Properties of Oilfield Emulsions,*” Proceedings, the National Seminar on Problems of Petroleum Production: Onshore & Offshore, held at Indian School of Mines, Dhanbad (Oct. 21-23, 1984).
- 4. Kumar, T.: “*Flow Properties of New Fracturing Fluid and Fluid-Proppant System for Use in Well Stimulation Programme,*” Energy Journal, URJA (May 1985).
- *5. Kumar, T. and Srini-Vasan, S.: “*A New Model for Analysis of the Rheological Properties of Crude Oil-Water Emulsion Systems,*” Paper SPE 15201, Microfiche Volume of Society of Petroleum Engineers International, USA, (1985).
- *6. Kumar, T.: “*Principles of Simulation Applied to Oilfield Venture Analysis with System Approach,*” Paper SPE 14488, Journal of Petroleum Technology, USA (October, 1986).

- *7. Kumar, T. and Todd, A.C.: *“A New Approach for Mathematical Modeling of Formation Damage Due to Invasion of Solid Suspension,”* Paper SPE 18203, Proceeding of the 1988 SPE Annual Technical Conference and Exhibition held in Houston, Texas, USA (Oct. 2-5, 1988).
8. Kumar, T.: *“Formation Damage during Well Stimulation,”* Energy Journal, URJA (Nov.1989).
9. Kumar, T. and Jha, M.K.: *“Artificial Island to Develop Shallow Offshore Oilfields,”* Proceedings, National Seminar on Strategies in Petroleum Production & Utilization held at Indian School of Mines, Dhanbad (Jan. 13-14, 1990).
10. Kumar, T.: *“Systems Approach of Problem Solving with reference to Petroleum Industry,”* Proceedings, National Seminar on Strategies in Petroleum Production & Utilization held at Indian School of Mines, Dhanbad (Jan. 13-14, 1990).
11. Kumar, T.: *“Role of Formation Damage Evaluation in Predicting Well Injectivity,”* Energy Journal URJA (May 1990).
- *12. Todd, A.C., Kumar, T. and Mohammadi, S: *“The Value and Analysis of Core-Based Water Quality Experiments as Related to Water Injection Schemes,”* SPE Formation Evaluation Journal, USA (June 1990).
13. Kumar, T. and Jha, M. K.: *“Petroleum Engineering Education in India,”* Mineral and Mining World, (Nov.-Dec. 1990)
14. Kumar, T.: *“Crude Oil Emulsions: Their Role in Petroleum Industry,”* Energy journal, URJA, New Delhi (Feb.1991).
15. Kumar, T. Jha, M.K. and Mani, J.S. : *“Feasibility Study on Developing an Artificial Island off East Coast of India,”* Proceedings, the Fourth Indian Conference on Ocean Engineering, ENCOE-91, National Institute of Oceanography, Goa (Sept 4-6,1991).
16. Kumar, T.: *“Capillary Network Modeling of Porous Media,”* Chem. Eng. Division, Journal of the Institution of Engineers (India) Vol. 22 Pt. CH - 3, (Feb. 1992).
17. Kumar, T.: *“Formation Damage Resulting from Particle Invasion,”* URJA Oil & Gas International, New Delhi, (Feb. 1992).
18. Singh, Padam, Vidyasagar, K and Kumar, T.: *“Establishing the operating parameters of a Gas/Dual Fuel Engine and their cost comparison with a diesel engine,”* URJA Oil & Gas International, New Delhi (July-Aug. 1992).
19. Kumar, T. and Jha, M.K.: *“Selection of Artificial Island for Shallow Oilfields,”* Ocean Technology Perspectives, Publications & Information Directorate, CSIR, New Delhi (1994), pp 200-214.
20. Kumar, T. and Todd, A.C.: *“Application of Probability Methods in Network Modeling of Formation Damage Predictions,”* SPE NIS 93033, Proceedings, SPENIS National Seminar on Technology Trends in Oil Industry, Dehradun, UP (Jan 7-8,1994).
21. Siddiqi, A.M., Kumar, T. and Doshi, C.S.: *“Development of Marginal Oil & Gas Fields by Linear Programming Models - a Techno-Commercial Approach,”* SPENIS 93053, Proceedings, SPENIS National Seminar on Technology Trends in Oil Industry, Dehradun, UP (Jan. 7-8,1994).
22. Kumar, T., Banerjee, R. and Choudhuri, B.: *“Problems of Non-Uniqueness in Well Test Interpretation,”* SPE-NIS 93050, Proceedings, SPE NIS National Seminar on Technology Trends in Oil Industry, Dehradun, UP (Jan. 7-8, 1994).

- *23. Sharma, V.P., Singh, Inderjit and Kumar, T.: “*A Case Study of Environment Management Problems of Indian Oilfields,*” SPE 27145 Proceedings, the second International Conference on Health, Safety and Environment in Oil and Gas Exploration and Production at Jakarta, Indonesia (Jan. 25-27, 1994).
- *24. Pathak, A.K. and Kumar, T.: “*Development of a Computer Software for Three Dimensional Monitoring of Directional Wells,*” Proceedings, PETROTECH-95, the first International Petroleum Conference and Exhibition, New Delhi (Jan. 9-12, 1995).
- *25. Jha, K.N., Narasimhan, J.L. and Kumar, T.: “*Reservoir Engineering Aspects of Horizontal Well Technology,*” Proceedings, PETROTECH- 95, the first International Petroleum Conference and Exhibition, New Delhi (Jan. 9-12, 1995).
- *26. Pathak, A.K. and Kumar, T.: “*Slant Hole Drilling: A Better Drilling Technique for Larger Horizontal Targets,*” Proceedings, PETROTECH - 95, the first International Petroleum Conference and Exhibition, New Delhi (Jan. 9-12, 1995).
- *27. Pathak, A.K. and Kumar, T.: “*Study of Indigenous Crude Oil Emulsions and Their Stability,*” Proceedings, PETROTECH-95 the first International Petroleum Conference and Exhibition, New Delhi (Jan. 9-12, 1995).
- *28. Siddiqi, A.M. and Kumar, T.: “*Use of Mathematical Modeling for Optimum Development of Marginal Oil and Gas Fields,*” Proceedings, PETROTECH - 95, the first International Petroleum Conference and Exhibition, New Delhi (Jan.9-12, 1995).
- *29. Kumar, T. and Choudhary, P.K.: “*Recent Advances in Treatment and Inhibition of Oilfield Scale,*” Proceedings, PETROTECH - 95, the first International Petroleum Conference and Exhibition, New Delhi (Jan. 9-12, 1995).
- 30. Karmakar, G.P. and Kumar, T.: “*Conservation of Petroleum during Production,*” Proceeding, Seminar on Oil Conservation organized jointly by ISM and PCRA, at ISM, Dhanbad (Dec.8, 1995).
- *31. Sharma, V.P., Singh, Inderjit and Kumar, T.: “*Environmental Safety and Health Impact of Drilling & Production Operations in Bombay Offshore,*” proceedings of the first World Mining Environment Congress, New Delhi (Dec.11-14, 1995).
- *32. Pathak, A.K. and Kumar, T.: “*Slant-Hole Drilling - A Better Technique for Larger Horizontal Displacement,*” Drilling and Exploration World Journal (1996).
- *33. Kumar, T.: “*Evaluating the Impact of Formation Damage on Oil and Gas Production,*” Drilling and Exploration World Journal, Vol. 05 No. 04 (1996).
- 34. Pathak, A.K., Kumar, T., Ahmad, I. & Mishra, S.N.: “*Characterization of Surface Active Compounds in Indigenous Crude Oil Fractions,*” paper No. TU- Chem. (07)/96, Abstract Proceedings, the National Conference on Colloid and Emulsions of Natural and Synthetic Systems, Tripura University, Agartala, awarded certificate of merit & Cash prize, (Feb. 2-4, 1996).
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