

Prof. M. JAGANNADHA RAO

M.SC(TECH), MS(USA), Ph.D., SME(USA)

**Vice-Chancellor, Adikavi Nannaya University,
Rajamahendravaram**

Former Head of the Department, Dept. of Geology;
Former Dean, PG & Professional Examinations, AU;
Former Director, Delta Studies Institute, AU;
(Petroleum Research Institute, established by ONGC)
Chairman, BOS – Dr. B. R. Ambedkar University;
Former Honorary Director, Information Management Centre, AU;
Former Director, International Students' Affairs,
Andhra University, Visakhapatnam-530 003.



MY MISSION STATEMENT

The Adikavi Nannaya University, Rajamahendravaram, should become a world class centre for teaching, research, training and consultancy in Engineering, Science, Technology and allied fields with extensive industry partnership and international presence. My Vision is to see that this Institute should be the International Institute of Choice for education, Research, training and consultancy. The University will be driven forward to create human resources of eminence to positively contribute towards the generation of knowledge and social commitment through humanism and tolerance, for reason, for adventure of ideas, and for the search of truth. Hence the Institute would therefore seek to ensure the development of centre of world-class education infrastructure, provide access to research-enabled learning, and integrate nation-building with Academic Excellence in advanced studies.

SPECIALIZATION

Coastal Geology, Deltas, Mineral Resources and Processing, Petroleum Exploration, Coal, Environmental Geology, Computer Applications Groundwater, Remote Sensing and GIS, Natural materials, Earth's Evolution.

ACADEMIC QUALIFICATION

Degree/ Diploma	University/ Institution	Year	Class	Subjects
B.Sc.	Andhra University	1978	First	Geology, Physics and Chemistry
M.Sc. (Tech.)	Andhra University	1981	First class with Distinction II RANK	Applied Geology
M.S. Engg.	University of Alaska, USA	1995	3.75 GPA On 4.0 scale	Mineral Preparation and Geological Engineering
P.G. Diploma	Andhra University	1989	First	Applied Statistics
Ph.D.	Andhra University	1985	-	Coastal Geology/Sedimentology <i>“Origin of Recent Sediments along Visakhapatnam and Bhimunipatnam Coast, East Coast of India”</i>

Ph.D. WORK

Done Ph.D. work on “Origin of coastal sediments along Visakhapatnam and Bhimunipatnam East Coast of India” is a detailed work on these sediments, which is a comprehensive investigation covering red sediments, dune sands and beach sands, has been a novel contribution. The foreign adjudicator Prof. Orrin H Pilkey, Durham State University, USA is an all-time great sedimentologist and president of SEPM, in his comments, appreciated the contribution, especially the evidences discovered in this work, related to Pleistocene sea level oscillations along this part of the coast. These include the first-time report of Beach rock in its various forms, which has been a very significant contribution.

Professional Experience at Andhra University

- **Assistant professor of Geology 1986-1998**
- **Associate professor of Geology 1998-2006**
- **Professor of Geology 2006-till date**

1 Teaching 33 years

2 Research 36 year

3 Research Guidance Guided 25 students for their doctoral research besides guiding a number of Masters’ students

4 Administration 15 years (Advisor, Students Affairs; Director, International students; Director, Delta Studies Institute; Chairman BOS, Dr B.R. Ambedkar University; Honorary Director, IMC-AU;

		Head of the Department, Department of Geology, AU; Dean, PG& Professional Examinations, AU.)
5	Present Positions	Vice-Chancellor, Adikavi Nannaya University, Rajahmundry. Chairman, BOS – Dr. B. R. Ambedkar University.
6	Consultancy	Extended consultancy services to industry

Subjects Taught at Masters' Level:

Mineral Exploration, Coal Geology, Petroleum Geology, Economic Geology, Mineral Processing, Geochemistry, Statistical Geology, Computer Applications in Geoscience.

Highlights of Scientific/Administrative Achievements:

- Headed the Delta studies Institute and made significant contributions research related to Coastal and Deltaic Environments of East coast of India, which has direct bearing on petroleum exploration.
- Conducted Seminars, workshops and Training Programs in collaboration with ONGC,
- Attracted significant funding from ONGC and from Other Oil Companies in the form of Research Projects, Consultancy projects etc.
- Extended consultancy services under MOU to Oil companies including ONGC, Oil India and Reliance Petroleum
- Conducted Refresher Courses to ONGC officials on Applied Coal Petrology in Oil Exploration, and On Modern Deltas which were rated as "Excellent" in ONGC's Participants' Feedback.
- Reported "Beach Rock" for the first time from East Coast of AP.
- Undertaken Collaborative research work with University of Alaska Fairbanks, U.S.A. on coal processing (Development of environmental friendly coal water fuels)
- Initiation of Research work on Indian Coals in Collaboration with Labs like RRL, Indian School of Mines etc with emphasis on environmental aspects of coal combustion.
- Undertaken research work on groundwater pollution due to mining, urbanization and Industrialization.
- Carried out extensive research work on Ore mineralogy, geochemistry, Process mineralogy and Environmental aspects of mining of placer ilmenite deposits of East Coast of India.
- Conducted Research on Bauxites of East Coast and established a new theory on its origin, based on which new Bauxite deposits were identified in Eastern Ghats of AP using RS and GIS tools.
- Initiated research on applications of RS and GIS tools to solve Geological problems in mining and mineral exploration.

- Initiated research work on characterization of natural materials towards their Nano properties and applications.
- Conducted Research work on software applications on Environmental monitoring.

Patent

Title: *An Invention Model that explains the Genesis of Bay of Bengal and Arabian sea*
Ref ID: NRDC/IPFC/VSP/PA/031/2018

A patent has been filed with the funding of NRDC, Government of India, New Delhi.

Title and year of the Ph.D. thesis awarded under the guidance:

Name	Year	Title
Bharani Allu	2018	"APPLIED GEOLOGICAL INVESTIGATIONS ON A FEW SOUTH INDIAN MINERAL DEPOSITS WITH AN EMPHASIS ON THE NEED OF PIXE TECHNIQUE FOR FAST AND RELIABLE MINERALOGICAL AND GEOCHEMICAL EVALUATION"
P.Avatharam	2018	" Studies on Geology, Geomorphology, Localization and Characterization of Placer Sand Deposits from Bhiunipatnam to Itchapuram, North Coastal Andhra Pradesh, East Coast of India, Thesis Submitted
G. Raja Rao	2017	Application of Spatial Technologies towards Geological, Morphological and Slope based characterization of Nagavali-Vamsadhara River systems, East coast of India, with reference to gravity based flood mitigation – Thesis submitted
B. Sudharani	2017	Studies on Geology, Geo-morphology, spatial distribution and Sedimentological characterization of coastal sediments from different sub-environments of Visakhapatnam-Bhimunipatnam Coast, Andhra Pradesh, India – Thesis submitted
V S SKiran	2017	Studies on Microwatershed Prioritization of Simlapal Block, Bankura district, West Bengal using Spatial technologies with reference to developing, an innovative Hydrological model towards sustainable, soil and water resources management – Thesis submitted.

Greeshma A. G	2017	Studies on Texture, Ore mineralogy and Geochemistry of Ilmenites from parts of East coast of India, with reference to their response to leaching and Nano characterization
M. Mallikarjuna Rao	2016	Studies on Geology, Geomorphology and Environmental impacts on Geological sub-environments of Visakhapatnam Smart city, AP, Due to Rapid urbanization and Industrialization
Ravi Misra, GM, ONGC	2014	Reconstruction of Sub surface Micro environments, Avulsion history and Progradation of Mahanadi Delta East coast of India
Duppala Vijay Kumar	2014	Studies on developing an innovative software and hardware based system, to detect and monitor air pollution with wireless and web based protocols
KolliMahalakshmi	2013	Mineral exploration, prospects and mining plan methodology of Banded iron formations in parts of Bayyaram (Village and Mandal), Khammam (Rural) district, Andhra Pradesh State, India
P. Satyanarayana	2013	A study on the quality, distribution and management of groundwater in Visakhapatnam district, Andhra Pradesh, India..
K. Isreal	2012	“ Geology, Geomorphology and Groundwater quality of Thandava sub basin, using RS and Field Investigations”
Anil N. C.	2011	Studies on Spatial and temporal variability of Godavari Delta, Using RS and GIS tools
Ch. Hanuman Prasad	2010	Studies on exploration and Modelling of Bauxite deposits, from parts of Eastern Ghats, using remotely sensed data, Andhra Pradesh, India.

G. Venkateswara Rao	2009	Studies on design and implementation of Network based and Web based software and hardware modules for Global Emission Monitoring.
A. A. Jaya Raj	2009	Studies on exsolved phase mineralogy and EPMA geochemistry of placer ilmenite from parts of East coast of India.
M. Swarna Latha	2008	A Study on land use, land cover and environmental impacts on various sub-environments of Greater VisakhaMunicipal Corporation area, A.P, India using remote sensing and GIS tools.
K. Mehar Ganesh	2008	A Study on Geology, Hydrogeology and quality of fluoride bearing groundwater regime, from parts of Nalgonda District, Andhra Pradesh, India, Using Remote sensing and G.I.S. Tools
J. Venkataramana	2007	Studies on Geology, Ore Mineralogy and Geochemistry of Ilmenite from beach placers of Kakinada, Bhimunipatnam and Srikurmam deposits, Andhra Pradesh, India
P. Jagadeswara Rao	1999	Hydrogeology, Morphometry and Remote Sensing Studies on Champavathi River basin, Vizianagaram District, A.P.
P. L. V. Prasada Rao	1998	Studies on Mineralogical and Geochemical Transformations of Coal ash in relation to Coal Combustion from Kothagudem Coal field, AP, India.
G. Jai Sankar	1997	Environmental Hydrogeology and Impact Assessment of Groundwater regime from Agnigundala Sulphide Deposit, A.P., India.
J. Shyam Kumar	1995	Environmental Geology and Impact Assessment of two Geological Sub-Environments from Visakhapatnam Urban-Industrial area. A.P.
K. S. Peter	1992	Geochemistry and Mineralogy of Magnetites and Associated rocks of Polavaram, E.G. District, India.

U. P. N. Raju	1990	Genetic Evaluation of Manganese Ores from parts of Eastern Ghats, India.
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Administrative Experience at Andhra University

Director, Delta Studies Institute, Andhra University (2010-2014)

"I have served as the Director for the "Delta Studies Institute" of Andhra University during 2010-2015, a research Institute established by ONGC-AU Collaboration. With aggressive planning and strategies, I could attract significant funding from ONGC by way of consultancy projects, Training programs, Research Projects CSR projects etc. I was instrumental in making the ONGC to agree to sanction a corpus fund to the tune of Rs 20.00 crore to the Institute, by which the Institute could become financially self-sustaining."

Activities carried out:

The Delta studies Institute was established in the year 1997, with the collaboration of ONGC, to undertake research and extend training on modern Deltas, which will help to model the Deltaic process so that the ancient Deltas can be understood in a better way, which are potentially rich in Hydrocarbons. As a Director, Delta Studies Institute, research and academic activities related to Modern Deltas, Coastal Geology, petroleum science and technology have been conducted. Being the Director of the centre, during my tenure a number of activities including **PETRO-FEST-2010, 2011, 2012 and 2014 and training Programs** to ONGC Officials, workshops have been conducted, as mentioned below.

Designed and implemented a national level M.Tech program in Petroleum exploration with the help of ONGC experts. The faculty are also drawn mainly from Oil Industry, who are experts with immense experience.

The students of M.Tech were given project guidance in collaboration with industry experts; Total students guided 31, as shown in Annexure

Training programmes Conducted to ONGC Officers (2010-2014)

Sl.No.	Title of the Training Programme	Organized for	Duration	No of Participants	Feedback
1	Modern Deltas – A Field Seminar	ONGC Academy, Dehradun	16 th – 20 th Dec., 2013	15	Excellent
2	Modern Deltas – A Field Seminar	ONGC Academy, Dehradun	3 rd – 7 th Dec., 2012	15	Excellent
3	Modern Deltas – A Field Seminar	ONGC Academy, Dehradun	13 th – 17 th Feb., 2012	15	Excellent

4	Modern Deltas – A Field Seminar	ONGC Academy, Dehradun	5 th – 9 th Dec., 2011	17	Excellent
5	Modern Deltas – A Field Seminar	ONGC Academy, Dehradun	22 nd – 27 th Nov., 2010	15	Excellent

National Seminars and Workshops Conducted

At Delta Studies Institute (2010-2014)

Convener: Prof M. Jagannadha Rao, Director, Delta Studies Institute

- ✓ **PETRO FEST - 2010** a “National Seminar cum Workshop on **Recent Advances in Hydrocarbon Science, Technology and Industry Prospects**” is being organized from 27th – 29th December 2010.
- ✓ Workshop on “**The initiatives of Delta Studies Institute to attract more industry patronage**” 26th March, 2011
- ✓ **PETRO FEST - 2011** a National Seminar cum Workshop on “**Indian Petroleum Resources and Petroleum Industry, Present Scenario and Future Prospects**” from 27-29 December 2011.
- ✓ **PETRO FEST - 2012** a National Seminar cum Workshop on “**Indian Petroleum Resources, Challenges and Prospects for Exploration and Production - Opportunities for New and Nonconventional Energy Resources**” from 27-29 December 2012.
- ✓ **PETRO FEST - 2013** a National Seminar cum Workshop on “**Indian Petroleum and Non-Conventional Energy Resources – Present Trends and Futuristic Initiatives**” from 27-29 December 2013.
- ✓ **DST Project Monitoring Committee meet, organized as Coordinator, April, 2014**
- ✓ **National Workshop on “The Role of Earth Science Education on Sustainable harnessing of mineral resources of Mineral Resources” June 30th 2018, M.R. College, Vizianagaram.**

Projects at Delta Studies Institute:

- ✓ **Studies on Holocene Evolution of Mahanadi Delta-** Funded by ONGC Rs 85-00 lakhs, 2010-2013, Funded by **ONGC, extension also approved.**
- ✓ **Studies on Land Subsidence due to Hydrocarbon exploration and exploitation at KG-PG Basin, AP using Remote Sensing and Field studies.**Rs 1.2 Crore **ONGC 2013**

Director International Students’ Affairs, Andhra University. (2006-2009)

Activities carried out:

It was my privilege to initiate foreign student's admissions into Andhra University on a big scale for the first time in the history of the University.

"I have served as the Director, International students Affairs of Andhra University during 2005-2009, by the time I have taken over AU doesn't have a single foreign student. With my commitment, hard work and planning I could take the foreign students' admissions to the tune of 350 plus annually and helped the University to earn huge revenue and established the tempo of continued foreign student's admissions by entering in to a number of MOUs with international agencies."

As the Director of International Students' office, I have coordinated all the affairs related to International programs and events at Andhra University. These include International Students admissions including NRI's and PIO's, student exchange programs, MOU's with foreign Universities, design and implementation of joint and Twinning programs with International Universities of repute, faculty exchange, International joint research programs etc. Some of the achievements are given below.

Number of Foreign, NRI and International Students given Admission during the year 2006-09: 350

Some of the most important MOUs' signed during my tenure (2006-09)

- ❖ Asia Theological Association, Bangalore on Religious Studies.
- ❖ Kansas State University, USA for Research and Development.
- ❖ Indian Institute of Human Rights, New Delhi.
- ❖ Indian Navy, for establishing a center for Maritime Studies.
- ❖ Alcorn State University, Mississippi, USA.
- ❖ NATCO Institute of Pharmaceutical Sciences & Research, Hyderabad.
- ❖ Blekinge Institute of Technology, Sweden.
- ❖ Defense Research and Development Organization.
- ❖ Soonchunhyang University, Republic of Korea.
- ❖ UND Life Sciences, USA.
- ❖ Florida State University, USA.
- ❖ Globus Education, Hyderabad.
- ❖ University Hospitals of Geneva, Switzerland.
- ❖ University of Delaware, USA.
- ❖ University of Alaska, Fairbanks, USA.
- ❖ Jackson State University, USA.
- ❖ Educational Consultants India Ltd., Govt. of India.
- ❖ Oil and Natural Gas Corporation, India
- ❖ Geological Survey of India.

International Students Hostels

Two full-fledged International Students Hostels each with a capacity of 100 rooms have been completed and International Students were given accommodation. The Hostels are of International Standards with facilities for study, cooking, dining, entertainment, games and facility for Wi-Fi internet...etc. I was instrumental in the design and implementation of this project.

Dual Degree and Twinning Programs Initiated

- 1) Dual Degree Program with Blekinge Institute of Technology, Sweden.
 - a) M.S. Software Engineering
 - b) M.S. Signal Processing
 - c) M.S. Telecommunication Systems
- 2) **Twinning Program with Kansas State University, USA.**
 - M.S. Molecular Biology & Biotechnology
- 3) **Twinning Programme with Perth College, University of High lands and Islands, Scotland, UK.**
 - B.Eng. Aircraft Engineering

Additional information:

Specialized training:

1. Spectrochemical Analyses (AAS, ICP-MS, Spectrograph) at MIRL, UAF, USA, Grad Courses.
2. Electron Probe Micro Analysis (EPMA), University of Washington, Pullman, USA.
3. Geostatistics, National Mineral Development Corporation, Hyderabad, India.
4. Computer Applications – Operating systems, Database, GIS, Multimedia, *Diploma in Advanced Computing, Multisoft, Visakhapatnam*
5. Neutron Activation Analysis, (INAA), Kalpakkam, BARC, India.
6. PG Diploma, Applied Statistics, Andhra University, India.
7. Statistical computing packages, MINITAB, SPSS (Grad Courses), UAF, USA.
8. Coal Preparation, Coal Petrology, Coal Chemistry, Mineral Beneficiation from Mineral Industry Research Lab, University of Alaska, Fairbanks, USA.
9. Ore Microscopy.
10. Hydrometallurgy.

International exposure:

Visited the University of Alaska, Fairbanks, USA and spent nearly two and half years as Graduate Research Assistant and worked with Prof. Daniel E. Walsh at the Mineral Industry Research Lab on “The development of environmentally friendly Coal Water Fuels (CWF’s)”. Also worked on the project.

**“Process mineralogy of ferric Chloride leaching of complex Sulphide ores”
and other projects of Coal science and Technology.**

Collaborative ties: (National/International)

International:

1. **CSIRO, Petroleum, Australia, Prof.N.Sherwood, Fluorescence Alteration of Multiple Macerals, (FAMM) Studies**
2. **Mineral Industry Research Labs. U.A.F Alaska, U.S.A. – Prof. D.E. Walsh**

The main objective of this project is to upgrade the low rank coals of Tertiary age with special emphasis on moisture reduction using hot water drying (HWD) technique. Also emphasis is given to develop environmentally friendly coal water fuels from HWD product.

National:

1. Ravi Misra, KDMIPE, ONGC, Dehradun
2. Papa Rao Bhavana, GM, KG-PG Basin , ONGC, Rajahmundry asset,
3. Ravi Armudi, Sr Petroleum Geologist, Reliance Petroleum
4. Nathaniel . K, Consultant, Petroleum Exploration,
5. Umamahesh, Ajapa, Oil well Drilling company.
6. Mr Venugopal, Sr Consultatnt, Oil India Ltd
7. Krishnamacharyulu, Director, Earth Sciences, University of Nanded,
8. Indian Institute of Technology, Roorkee- Prof ChakrapaniGovind
9. Regional Research Laboratories, Bhubaneswar – Dr. R.B. Rao
10. Indian School of Mines, Dhanbad – Prof.A.S.Venkatesh
11. Nuclear Chemistry Division, BARC, Mumbai- Dr A.V.Reddy
12. Anna University- Prof R. Nagendra
13. GITAM University-Prof Ch,Rama Krishna
14. Ravi Shankar University- Mr Gopala Krishna
15. Dr R.Giri Prasad, Aditya Engineering College, JNTU(K), Kakinada

Within the Campus:

1. Dept of Environmental science-Prof Prasada Rao
2. Dept Mechanical Engg- Prof A.Rama Krishna, Material Science
3. Dept of Nuclear Physics-Dr S.Lakshmi Narayana
4. Dept of Geo-Engineering- Prof K.S.Prakasa Rao
5. Dept of Nuclear Chemistry-Prof R,Murali Krishna

Research Outcome:

- (a) No. of PhD's awarded under the guidance: 25
- (b) No of M.Tech./M.Sc. Theses: Nearly 80 (1986 to till Date)
- (c) No. of research projects: 8
- (d) No. of papers published – National and International: 86 (Published in Journals), 13 papers presented in National and International Seminars. And 3 papers communicated.

Memberships of Scientific Societies

1. Member, Gondwana Geological Society, Nagpur, India.
2. Member, Society for Metallurgical Engineers, (SME), USA.
3. Life member Indian Geological Congress. (IGC)
4. Associate Fellow, A.P Akademi of Sciences, Hyderabad.
5. Life Member and Executive Secretary (Visakhapatnam Regional Chapter), SAAEG,
6. Special Invitee, SPG, India,
7. Member, Indian Science Congress,
8. Member, UAF Alumni Association, USA
9. Member, Organizing Committee, International Geological Congress, IGC 2020.

Industry Interaction

- Conducted number of Refresher Courses and training programs to ONGC and other oil Companies' Officials on *"Modern Deltas"* and *"Organic Geochemistry and Applied Coal Petrology in Oil Exploration"*
- Designed and Implemented M.Tech Course in Petroleum Exploration with Industry Patronage and Cooperation
- Number of cement Industries (L&T, ACC) and are showing keen interest on the research work leading to the process development for zeolite synthesis from Coal Fly ash which will be of Environmental friendly technology in fly ash management.
- Consultant for ONGC and Oil India Ltd on Land subsidence studies.
- Chief Consultant Geomarine Services, Manglore.
- Special Invitee, InfoTech Ltd.
- Resource Person, GITAM University.
- Resources Person, SAPALA Research Institute, Hyderabad.
- Chief Consultant, Chakri Industries, Kolkata.

Honours & Appointment

1. Member, Advisory Board on KG-PG Basin, ONGC, Chennai-2011-2014
2. Associate Editor, Indian Journal of Environment and Eco planning.
3. Member, International Geological Correlation Group, National Working Group
4. Environmental Catastrophes.
5. Students' Advisor, Dept. of Geology, Andhra University.2002-2005
6. Director, International Students affairs, Andhra University. 2006-2009

7. Director, Delta Studies Institute, Andhra University 2010-2014
8. Chairman, Board of studies, DSI, Andhra University, 2010-2014
9. Chairman, Board of Studies, Dept of Geosciences, Ambedkar University, Srikakulam 2012-till date
10. Honorary Director, Information Management Centre, Andhra University, 2018- till date.
11. Head of the Department, Department of Geology, Andhra University, 2019-till date.
12. Dean, PG & Professional Examinations, Andhra University, 2019- till date.
13. Member, NAAC Steering Committee, AU
14. Member, Committee for Central University Proposal Preparation
15. Management Board member of a Number of Educational Institutions.
16. Member, Andhra University Academic Audit. 2016 and 2017
17. Member, GITAM University, Committee on M.Sc Earth Sciences Course Design.
18. "Scientist of the year 2017" by National Environmental Science Academy (NESA), New Delhi.

Fellowships:

1. **Federal Graduate Research fellow, University of Alaska, USA (1990,1992-95)**
2. **JRF and SRF**, from CSIR, New Delhi (1982-86)

Earlier Selections:

1. **Civil Services Group B Service, UPSC Exam 1985.**
2. **UPSC, Geologists Exam, All India 11th Rank, 1983.**

Consultancy:

Expertise in the following areas

1. Petroleum Geology,
2. Coal Science and Technology (Coal Petrology, Coal processing and CBM)
3. Mineral beneficiation, Mining and Mineral resource evaluation,
4. Natural materials and industrial applications,
5. Instrumental analysis (AAS, ICP, INAA) of Geological materials.
6. Interdisciplinary investigations with Civil, environmental, Metallurgical and chemical Engineering.
7. Environmental Geology
8. Subsidence Studies (SAR Applications)

Consultant: Consultant for various mining companies within Andhra Pradesh state.

Consultancy services rendered: Petroleum Exploration, Mineral exploration, geological mapping, Geochemistry, Ore reserve estimations, Environmental impact assessment, Geotechnical Engineering, Quality control, Coking Coal Characterization, Particle size analysis, Geo marine Services, Training programs to ONGC and other Oil Companies.

Invited Talks: 50 plus (1986-Till Date)

Other funded Projects as Principal Investigator:

- “Studies on Characterization and Localization of placer mineral deposits from parts of coastal tracts of AP and Orissa with special reference to the development of processing strategies”. 2002-2005, Funded by DOD, Rs. 10.66 lakhs,
- “Studies on exploration and reserve estimation for new and hidden Bauxite deposits from EGMB of A.P.” funded by APMDC-DMRTUF, Govt. of AP, Hyderabad. The project is of two years duration. (Rs.13.0 Lakhs) 2007-2010
- “Studies on exsolved phase mineralogy and chemical finger printing of placer ilmenites from North coastal Andhra Pradesh to establish from North Coastal Andhra Pradesh to establish genetic affinities and to evolve economic implications” funded by DST, New Delhi. The project is of three years duration. (Rs.12.0 Lakhs) 2007-2010
- “A study on process chemistry and product characterization of zeolite synthesis from coal fly ash and its applicability in soil remediation and conditioning” funded by UGC, New Delhi. (Rs.5.5 Lakhs).2008-2011
- “A Study on coastal geomorphological and neo-tectonic controls on the localization of placer mineral deposits along Bhimuniapatnam – Itchapuram, North Coastal, Andhra Pradesh” funded by MoES (Rs.12 Lakhs) 2009-2012
- “Spatial Characterization studies of Cleat and Fracture Patterns of Coal formation from Godavari Valley Coal Basin to Evaluate the zones of Coal Bed Methane migration and accumulation using Remote Sensing and Field Studies” Funded by Respond-ISRO Rs 10-09 Lakhs 2010-2013
- Studies on Holocene Evolution of Mahanadi Delta- Funded by ONGC Rs 85-00 lakhs, 2010-2013, Funded by ONGC, extension also approved
- Studies on Land Subsidence due to Hydrocarbon exploration and exploitation at KG-PG Basin, AP using Remote Sensing and Field studies. Rs 1.2 Crore **ONGC 2014.**

Other Activities:

Expert Member: UPSC, APPSC, Sambalpur University, Orissa; Kakatiya University, Andhra Pradesh; Nagarjuna University, Andhra Pradesh; Nagaland University, Izwal; Ambedkar University, Andhra Pradesh; Nannayya University, Andhra Pradesh. Utkal University, Aditya Engineering College

Paper Setter: Andhra University, Osmania University, Ravishankar University, Ambedkar University, Indian school of Mines, Dhanbad; APPSC, Different State Universities within Andhra Pradesh and Orissa, UPSC (Geologists' Examination).

Management Board Member: Stanley college of Engineering, Hyderabad; Indur College of Engineering, Hyderabad; Chadalvada College of Science, Engineering and Pharmacy, Tirupathi.

Activities of Societal relevance: Radio and T.V talks and interviews on aspects of Earth sciences of public interest. Interviews and articles to print media including publications in regional languages. Popular Lectures to School and college Children on Earth Sciences.

Student counselling: (Worked as student's adviser for three years (2005-2008 in the department of geology). Academic Counselling, Counselling and guidance for Competitive exams, Counselling for personality development. Job placements, Study abroad.

New Courses and Curriculum Designed:

Being Member in various Boards of Studies I have vast experience in curriculum design and implementation at UG and PG level.

New courses Designed

- **M.Sc Five year Integrated Course in Geology- Dept of Geology**
- **PG Diploma in Well Site Operations- Delta Studies Institute**
- **M.Sc Earth Sciences, GITAM University, Visakhapatnam.**

Future of Research and administration

Wish to continue my advanced research activity on the aspects of, Petroleum exploration ,Coastal Geology (Deltas and near shore sedimentation), Placer deposits of east coast of India, Environmental geology and Mineral Resources on the research topics of Industrial applications like material science of natural materials, synthesis of zeolites from fly ash, new and innovative Environmental friendly, mineral beneficiation techniques and computer simulation and modeling of Geo environmental Problems and Petroleum exploration.

“Looking forward for an opportunity to contribute to the growth of the Nation in any appropriate position, with inputs from my vast and varied experience and expertise”.

List of Publications

1. M. Jagannadha Rao and J.S.R. Krishna Rao. "Textural and mineralogical studies on red sediments of Visakhapatnam – Bhimunipatnam coast". *Geo views, Vol.XII*, No.2, 1984. Pp.57-64.
2. M.J. Rao, U.P.N. Raju and J.S.R. Krishna Rao. Textural analysis of beach sands from south Andaman". *Mahasagar, Bulletin of the NIO*, Vol.18 (1), 63-66.
3. M. Jagannadha Rao, "Beach Rock from Visakhapatnam coast". *Current Science*, 1987, 2, pp.26-27.
4. M.J. Rao and G.B. Naidu "A note on the erosional tendency at the Visakhapatnam Beach Environment". *IJEP* 9(11): pp.813-814, 1989.
5. J.R. Mokka, H.K. Lin and P.D. Rao. "Process mineralogy of Ferric chloride leaching, Delta District Complex Sulphide Ores, Alaska". *Journal of minerals and Metallurgical processing*, Nov. 1991, pp.205-209.
6. A.V. Subrahmanyam, M.J. Rao and J.S.R. Krishna Rao. "Nodular Laterite from Panchapatmali, Koraput District, Orissa". *IMEJ* January, 1992.
7. U.P.N. Raju, M.J. Rao and G.B. Naidu. "Geological Exploration and processing of Manganese in parts of Eastern Ghats". *IM & EJ*, June and July 1992, pp 3-7.
8. M. Jagannadha Rao and K.K.V.S. Raju. "A comment on the paper entitled Sapphirine – bearing assemblages from Perumalmalai, palani hills, Tamilnadu". *Jour. Geol. Soc. India*. Vol.40, Sept. 1992, pp.287-290.
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6. JagannadhraRao.M and Chandra Rao.M, "Synthesis of Zeolites from Coal Flyash – An Experimental Study".

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7. Jai Sankar.G, Jagannadha Rao.M and Chandra Rao.M, "Hydrogeology-Hydrogeochemistry of Groundwater from Agnigundala Mineralized Belt, Andhra Pradesh, India."

Presented at International Seminar on "Challenges of Water Resources Management in the Developing Countries" held in May 2001, Department of Geology, Andhra University.

8. JagadeswaraRao.G, JagannadhraRao.M and Chandra Rao.M, "Groundwater Evaluation in Chamapavathi River Basin, Vizianagaram district, using Governmental norms".

Presented at International Seminar on Challenges in Water Resources Management in the Developing Countries held in May 2001, Department of Geology, Andhra University.

9. J.VenkataRamana and M.Jagannadha Rao, "Mineralogical Characterization of Placer Sands for better processing strategies".

Paper Presented at National Seminar on "Mineral Based Industries Present Status and Future Prospects" held from 5-7 December 2001, Department of Geology, Andhra University, Visakhapatnam – 530 003.

10. "Studies on Characterization of Placer Ilmenite from parts of East Coast using Ore Microscopy and Ore Chemistry".

Paper Presented at International Seminar on Sedimentation and Tectonics in space and time, 16-18th April 2002.Organized by: Dept. of Civil Engineering, S.D.M. College of Engg& Tech,

11. Dharwad-3 & Dept. of Geology, Karnataka University, Dharwad – 580 003.

12. M. Jagannadha Rao, "Studies on Coal Bed Methane Exploration and Exploitation".
Presented at National Seminar on Non-conventional Energy Resources held at Department of Geophysics, Andhra University, Visakhapatnam, August 2002.
13. M. Jagannadha Rao, "Some Concepts of Computer Applications in Geology".
Presented at National Seminar on Computer Applications in Earth Sciences held at Department of Geology, Andhra University, Visakhapatnam, August 25-27, 2003.
14. M. Jagannadha Rao, J. VenkataRamana and B.S. Ganga Rao, "Process Chemistry and Product Characterization of Synthesized Zeolites from Coal Flyash". Presented at National Seminar on Mineral Process Technology held at Regional Research laboratory, Bhubaneswar, March, 2009
15. Petrofest 2010,2011,2012, 2013 at Delta Studies Institute, Andhra University, Visakhapatnam (Key note address /Papers presented in all the events)
16. National Workshop on "The Role of Earth Science Education on Sustainable harnessing of mineral resources of Mineral Resources" June 30th 2018, M.R. College, Vizianagaram.-Key Note Address

ANNEXURE**M.Tech Petroleum Exploration and Production Theses guidance:**

S.NO.	NAME	TITLE OF PROJECT	INDUSTRY
1	Yogaraj Kumar	Analysis on rig components in PGDA Block-3 in KG-Basin Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri. N.R. Subba Rao	AJAPA-E&P Consultant, ONGC Rajahmundry
2	Venkata Krishna Reddy K	Analysis of complicated well histories and recommendations for successful completion including technology perspective. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri. G. Vinay Kumar Gupta	Institute of Drilling Technology, (IDT) ONGC, Dehradun
3	A Krishna Murthy Naidu	Non-Damaging Drilling Fluids. Internal Guide: Prof. M. Jagannadha Rao External Guide: Dr. V.K. Singh	IDT, ONGC, Dehradun
4	RagalathaJagatha	A case study on SagarRatna (Jack-up Rig) and detailed overview of synthetic oil based-drilling fluid for the off-shore oil field. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri. N. Appa Rao	Hindustan Shipyard LTD., Visakhapatnam
5	K.Vijay Daniel	Glimpse into measuring while drilling and steerable down hole mud motor systems. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri. V.V. Prasad	ONGC, Rajahmundry
6	Sri HarshaVardhanSistla	Reservoir Management and analysis – For a producing field. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri. Vijay Gajula	Saturn Energy Solutions, Hyderabad
7	P. AnoopGowtham	Shale Studies Internal Guide: Prof. M. Jagannadha	IDT, ONGC, Dehradun

		Rao External Guide: Vishwanath Rai	
8	Aravind Pandey	Hydrocarbon Prospective studies in Mandapeta West area KG-PG basin, East coast of India. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri. P.R. Bhavana	ONGC, Rajahmundry
9	Soujanya Bobbili	G&G Report on ColueHampi – Argentina. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri. Vijay Gajula	Saturn Energy Solutions, Hyderabad
10	G.V.Prasanna Kumar	Drilling Operations. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri. V.V. Prasad	ONGC, Rajahmundry
	P.Naresh	Study on Casing While Drilling. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri. B.S. Naidu	AJAPA IPM Consultants Pvt. Ltd., Chennai
11	SreeSaranya M	Estimation of reserves by pressure decline method in Kanawara field. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri. K. Ramachandra Rao	Heramec Ltd., Hyderabad
12	PonnadaRaghunathaDeo	Development of viscous emulsified acid system for carbonate reservoir stimulation. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri. D. K. Sharma	IOGPT, ONGC, Mumbai
13	Narendra Vemana	Development of low density completion fluids for sub-hydrostatic wells. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri. K. Balakrishnan	IOGPT, ONGC, Mumbai
14	V.VijayBhargav	Technical Study on Directional Drilling Motor. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri. N.R. Subba Rao	ONGC, Rajahmundry

15	V.Sretej	Stuck Pipe Prevention. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri. V.V. Prasad	ONGC, Rajahmundry
16	V.Madantej	Well Planning and casing design. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri. V.V. Prasad	ONGC, Rajahmundry
17	V.Radha Krishnan	Perforations via coiled tubing unit. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri. S.K. Singh	Cairn Energy India Limited, MPT Rajasthan Operations
18	Thomas Babu.P	Sequence stratigraphical analysis of Langpar and Lakadong formations of tertiary sequence using wireline logs of Dibrugarh district of Upper Assam basin. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri Prabhu Shankar Karthikeyan	AjapalpmcPvt. Ltd., Chennai
19	TangiralaUmamaheswar	Annular pressure build up causes and mitigation. Under the Guidance of Prof. M. Jagannadha Rao	DSI, AU
20	SaladiSrikanth	Well Testing and completion. Internal Guide: Shri. B.V. Rao External Guide: Shri. T.C. Devangan	ONGC, Rajahmundry
21	Sai Manjusha P	Estimation of reserves by material balance method in Kanwara field. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri. K. Ramachandra Rao	Heramec Pvt Ltd, Hyderabad
22	PrakharSaxena	3D Seismic data-acquisition and seismic design. Internal Guide: Prof. M. Jagannadha Rao External Guide: Mr.Ravi Kumar Kotha	Saturn Energy Solutions, Hyderabad
23	Varun. N	Integration of geological, geophysical and drilling data evaluation using 3D for the hydrocarbon prospect of the block in work station located in the KG-offshore, Andhra Pradesh India.	ONGC, Chennai

		Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri P.D.Thomas	
24	Chander Prakash	Monitoring of drilling and geological parameters of a well in Krishna-Godavari Basin. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri P.R.Bhavana	ONGC, Rajahmundry
25	S.Rishi Raj Kumar	Evaluation of KG-offshore block for hydrocarbon potential using geological and 3D-Seismic data at workstation. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri.P.D.Thomas	ONGC, Chennai
26	JnanaDileepPonnada	Brief insight of oil and gas well drilling. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri. V.V. Prasad	ONGC, Rajahmundry
27	Anantha Kumar K	3D-Seismic Data Processing. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri. Ravi Kumar Kotha	Saturn Energy Solutions, Hyderabad
28	Ravi Chander B	Measurement while drilling tools and its principles. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri Vinod PadinhareVeetil	Weatherford Oil Tools M.E. Ltd., Kakinada
29	Devanathan.R	Depositional environment and hydrocarbon prospectivity of Matsyapuri formation in Gopavaram Area, KG-PG Basin, India. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri R.N.Mishra	ONGC, Chennai
30	Suresh Sanapathi	Technical study on directional drilling motor. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shree Sandeep Amin	Weatherford Oil Tool M.E Ltd., Kakinada

31	Dalbin T Vempeni	Structural Style and hydrocarbon prospectivity of Gollapalli Formation in Endamuru Area, KG-PG Basin India. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri R.N.Mishra	ONGC, Chennai
32	Pavan Kumar Talasila	Brief insight of oil and gas well drilling. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri V.V.Prasad	ONGC, Rajahmundry
33	Neeraj Kumar	Monitoring of drilling parameters in a high temperature well. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri P.R.Bhavana	ONGC, Rajahmundry
34	Ganesan G	Prospectivityevaluation of Krishna mouth area KG-PG Basin using 2D-seismic and well data offshore, Andhra Pradesh, India. Internal Guide: Prof. M. Jagannadha Rao External Guide: Shri P.D.Thomas	ONGC, Chennai