CV

Name: Pawan Govil
Date of Birth: 23rd December, 1978
Designation: Scientist "D"
Telephone: +91(522)2742969 (O)
+91-9865007219 (M)
Fax: +91(522)2740485
E-mail: **pawanali@gmail.com**

Academic Record:

- ✓ Ph.D. in Marine Sciences on entitled **"Late Quaternary paleoceanography of the northern Indian ocean"** (Goa University, India), 2004-2008.
- ✓ M.Sc. Applied Geology (Aligarh Muslim University, India), 2002.
- ✓ B.Sc. Geology, Chemistry, Zoology (Aligarh Muslim University, India), 2000.

Career record:

- ✓ 2017 to till date, Scientist "D" in Birbal Sahni Institute of Palaeosciences (BSIP), Lucknow.
- ✓ 2012 to 2016, Scientist "C" in Birbal Sahni Institute of Palaeosciences (BSIP), Lucknow.
- ✓ 2011 to 2012, Scientist "B" in Birbal Sahni Institute of Palaeobotany (BSIP), Lucknow.
- ✓ 2006 to 2011, Research Scientist "B"in "Limnological investigation from Antarctic Lakes: Paleoclimatic Implications" project**,** at National Centre for Antarctic and Ocean Research (NCAOR), Goa.
- ✓ 2002-2006,Project Assistantin **"BENFAN"** paleoclimate project, at National Institute of Oceanography (NIO), Goa.

Research Interests:

- ✓ Application of biogeochemical proxies from Antarctica lakessediment core to understand Antarctic climate variability in Holocene.Data generations and publications for Paleoclimatic reconstructions from the Antarctic lake sediment cores by using the micropaleontological and geochemical proxies.
- ✓ Application of planktonic foraminiferastable isotopes and biogeochemical elemental ratios (Mg/Ca and Sr/Ca) to understand glacial/interglacial and evaporation-precipitation budget in climatic variation.

Prizes/Medals/Honors:

- ✓ The Paleontological Society of India conferred me the award of **Mani Shankar Shukla Gold Medal** in recognition of my outstanding contributions in the field of Micropaleontology. The award ceremony was held at Geology department, Lucknow University on 24th September 2015.
- ✓ **DAAD fellowship** from June to December 2005, at MARUM Bremen University Germany.
- ✓ **First poster presentation award** for the paper entitled "Quantification of paleo sea surface temperature and sea surface salinity in the Bay of Bengal: Response of monsoon fluctuations" in National Conference in Goa during October 22-23, 2009.
- ✓ **Selected as a Micropaleontologist in Integrated Ocean Drilling Program (IODP) CHIKYU Expedition 322** from 1st September to 10th of October, 2009 in Nankai Trough Subduction Zone area in north western Pacific Ocean.

Professional attributes (Scientific Cruise Participation):

- ✓ Participated as a member of summer **35th Indian Scientific Expedition to Antarctica (ISEA)** to Antarctic Indian station Maitri and Larsemann Hills from November, 2015 to February, 2016.
- ✓ Participated as a member of summer **32nd Indian Scientific Expedition to Antarctica (ISEA)** to Antarctic Indian station Maitri and Larsemann Hills from November, 2012 to February, 2013.
- ✓ Participated in **Integrated Ocean Drilling Program (IODP) CHIKYU Expedition 322** from 1st September to 10th of October, 2009 in Nankai Trough Subduction Zone area in north western Pacific Ocean (Near Japan).
- ✓ Participated as a member of summer **26th Indian Scientific Expedition to Antarctica (ISEA)** to Antarctic Indian station Maitri and Larsemann Hills from January to April, 2007.
- ✓ Participated in **cruise SK-187** in the Arabian Sea and Bay of Bengal from 23rd January to 17th February 2003. *Was personally involved in the assembly and operation of the Piston Corer, throughout the 24-day expedition.*
- ✓ Collected Surface Water Sample from Andaman Sea during 7th May to 22nd may, 2004.

Professional Scientific Memberships:

- ✓ Palaeontological Society of India (Life member)
- ✓ Indian Science Congress Association (Life member)
- ✓ Paleontological Society of India (Life member)

Training Experience:

- ✓ Participated as a member of summer 35th Indian Scientific Antarctic Expedition (ISAE) to Antarctic Indian station Maitri and Larsemann Hills from November,

2015 to March, 2016. The sediment core has been collected during this expedition for the paleoclimate reconstruction.

- ✓ Participated as a member of summer 32nd Indian Scientific Antarctic Expedition (ISAE) to Antarctic Indian station Maitri and Larsemann Hills from Novmebr, 2012 to March, 2013. The sediment core has been collected during this expedition for the paleoclimate reconstruction.
- ✓ Training course in GEO-INDIA 2011 for Depositional Systems and Facies Analysis: Utility in Petroleum System Analysis, in New Delhi, January, 2011.
- ✓ Training for 2 months in Physical Research Laboratory, Ahamdabad for TL/OSL dating from the sediment core samples from Antarctica, from June, 2010 to July, 2010.
- ✓ Participate as a MICROPALEONTOLOGIST in Integrated Ocean Drilling Program (IODP) CHIKYU Expedition 322 from 1st September to 10th of October, 2009 in Nankai Trough Subduction Zone area in north western Pacific Ocean (Near Japan).
- ✓ Participated as a member of summer 26th Indian Scientific Antarctic Expedition (ISAE) to Antarctic Indian station Maitri and Larsemann Hills from January to April, 2007. The sediment core has been collected during this expedition for the paleoclimate reconstruction.
- ✓ Using and learning process of the Mg/Ca Elemental ratios from Planktonic Foraminifera as a proxy for the reconstruction of past sea surface temperature from northern Indian Ocean under the DAAD Fellowship program during June to November, 2005 in Bremen University, Germany.
- ✓ Shipboard training in Geological sampling, geophysical surveying instruments including, *assembling and operation of Piston Corer* and Multi sensor core logger, Echosounder, Global Positioning System and Spade Corer. Many sediment cores have been collected from the northern Indian Ocean during this scientific cruise. Participated in **cruise SK-187** in the Arabian Sea and Bay of Bengal in 2003.

Student Guidance:

1. Emmanuel Barreto (2010). Study of core sediment samples from Antarctica Lake. B.Sc., Fergusson College, Pune.
2. Shalini Sharma (2009). Study of diatoms and quartz grains from fresh water lake core sediments, Larsemann Hill, Antarctica, and their paleoclimatic implications. M.Sc. (Tech.), Banaras Hindu University, Banaras.
3. Sandeep Kumar (2009). Paleoclimatic studies of two lakes sediment cores from Larsemann Hill, Antarctic based on geochemical proxies. M.Sc. (Tech.), Banaras Hindu University, Banaras.
4. P.S. Vijay Kumar (2008). Sedimentary analysis of glacial samples near Maitri station, Schirmacher Oasis, Antarctica. Int. M.Sc., Indian Institute of Technology, Kharagpur.
5. S.V. NagendraBharadwaz (2008). Sedimentary analysis of Antarctic lake core sediments, Larsemann Hills. Int. M.Sc., Indian Institute of Technology, Kharagpur.

Sponsored Project:

1.Under the fast track scheme for young scientist at Department of Science and Technology (DST) project entitled **"High resolution paleoclimatic and paleoceanographic study on eastern Arabian Sea off Saurashtra based on foraminifera and their geochemical signature"** have been sanctioned and initiated the work in November, 2013. One JRF (Mr.

Syed Azharuddin) has been appointed on this project and enrolled for PhD from Geology Department, Banaras Hindu University, Varanasi.

Publications:
Papers (International):

1. Mazumder, A.,**Govil, P.,**Kar, R., Gayathri, N. M., &Raghuram**(2017)**.Palaeoenvironments of a proglacial lake in Schirmacher Oasis, East Antarctica: Insights from quartz grain microtextures. Polish Polar Research, vol. 38 (1), 1-19.
2. Azharuddin, S., **Govil, P.,** Singh, A.D., Mishra, R., Agrawal, S., Tiwari, A.K., & Kumar, K., (2016, In press). Monsoon-influenced variations in productivity and lithogenic flux along offshore Saurashtra, NE Arabian Sea during the Holocene and Younger Dryas: A multi-proxy approach.Palaeogeography, Palaeoclimatology, Palaeoecology. doi: 10.1016/j.palaeo.2016.11.018.
3. **Govil, P.,**Mazumder, A., Asthana, R., Tiwari, A., & Mishra, R. (2016, In Press). Holocene climate variability from the lake sediment core in Schirmacher Oasis region, East Antarctica: Multiproxy approach. Quaternary International. http://dx.doi.org/10.1016/j.quaint.2016.09.032.
4. Mazumder, A., Khare, N., &**Govil, P.,** (2016). Statistical approach to correlate the morphological variations in foraminifera *NeogloboquadrinaPachyderma* with the hydrological parameters in surface sediment along NS transect in SW Indian Ocean. International Journal of Earth Sciences and Engineering, vol. 9 (3), 966-972.
5. Hayashi, H., Yamashita, K., **Govil, P.,**Idehara, Y., Tanaka, T., and Nishi, H., **2014**. Data report: middle Miocene to Pliocene planktonic foraminiferal biostratigraphy of the northern part of the Shikoku Basin, IODP Exp. 322 Site C0012. In Saito, S., Underwood, M.B., Kubo, Y., and the Expedition 322 Scientists, Proceedings of the Integrated Ocean Drilling Program, 322: Tokyo (Integrated Ocean Drilling Program Management International, Inc.). http://dx.doi.org/10.2204/iodp.proc.322.206.2014
6. Mazumder, A., Khare, N. &**Govil, P.(2014)**. The interdependency of the morphological variations of the planktonic foraminiferal species *Globigerina bulloides*in surface sediments on the environmental parameters of the southwestern Indian Ocean. **International Scholarly Research Notices,** DOI: dx.doi.org/10.1155/2014/621479.
7. Mazumder, A., **Govil, P.,** Ravindra, R., &Khare, N. **(2013)**. Indication of colder condition within Holocene period in a freshwater lake in Vestfold Hills area, East Antarctica region. **Geosciences Journal,** vol. 17, no. 2, pp. 235-239.
8. Mazumder, A. &**Govil, P.(2013)**. Signature of warmer Late Holocene around Vestfold Hills, East Antarctica. **Canadian Journal of Basic and Applied Sciences,** vol. 1, no. 1, pp. 33-43.
9. Mazumder, A., **Govil, P.,** Sharma, S., Ravindra, R., Khare, N. &Chaturvedi, S. K. **(2013)**. A testimony of detachment of an inland lake from marine influence during the mid-Holocene in the Vestfold Hills region, East Antarctica. **Limnological Review**, vol. 13, no. 4, pp. 209-214.

10. Khare, N., Mazumder, A. and **Govil, P.(2012)**.Do changes in coiling directions in Planktonic Foraminifera correspond to dimorphic reproduction? **Oceanology,** 52 (3), 1-8.
11. **Govil, P.,**andNaidu, P.D.,**(2011)**. Variations of Indian monsoon precipitation during the last 32 kyr reflected in the surface hydrography of the western Bay of Bengal. **Quaternary Science Reviews**.Vol. 30 (27-28), 3871-3879.
12. Khare, N., **Govil, P.,** Kumar, P., Mazumder, A., Chopra, S., Pattanaik, J.K., Balakrishnan, S. and Roonwal, G.S. **(2011)**. ^{10}Be as paleoclimatic tracer: initial results from south western Indian Ocean sediments. **J. Radioanaly. Nucl. Chem.,**doi: 10.1007/s10967-011-1218-4.
13. **Govil, P.** and P. D. Naidu **(2010).** Evaporation-precipitation changes in the eastern Arabian Sea for the last 68 ka: Implications on monsoon variability. **Paleoceanography,** 25, PA1210, doi:10.1029/2008PA001687.
14. Naidu, P.D., and**Govil, P.(2010)**. A new Evidence on sequence of deglacial warming in the tropical Indian Ocean. **J. of Quaternary Science**. doi: 10.1002/jqs.1392.
15. Naik, S.S., Naidu, P.D., **Govil, P.** and Godad, S. **(2010)** Relationship between Weights of Planktonic Foraminifer Shell and Surface Water CO_3: Concentration during the Holocene and Last Glacial Period. **Marine Geology,** doi:10.1016/j.margeo.2010.05.004**.**
16. Khare, N., **Govil, P.,** and Mazumder, A. **(2009)**. An assessment of the latitudinal changes in morphological characteristics of planktic species NeogloboquadrinaPachyderma (Ehrenberg) along North-South transect in South Western Indian Ocean. **Geo-Marine Lett.**, 29 (1), 61-69.
17. Mazumder, A., Khare, N., **Govil, P.,(2009)**. Cosmopolitanism of the planktic foraminiferal species *Globigerinitaglutinata*- A testimony by Q-mode cluster analysis. **Int. J. of Geology**, vol 3 (1), 1-7.
18. **Govil, P.,** and Naidu, P.D. **(2008)**. Late Quaternary changes in depositional processes along the western margin of the Indus Fan. **Geo-Marine Lett.**, 28, 1-6.

Papers (National):

19. Mazumder, A.,**Govil, P.,**Ghosh, A.K., Ravindra, R. **(2012)**. Significant research on diatom in Antarctica lake during last decade. **J. Algal Biomass Utln.,** vol. 3, no. 4, pp. 74-79.
20. **Govil, P.,**Asthana, R., Mazumder, A. and Ravindra, R., **(2012)**. Grain size distribution and its influence on biological productivity during Holocene in a fresh water lake in Larsemann Hills, Antarctica. **National Academy of Science Letters,** 35(2), 115-119. **(IF: 0.173)**
21. **Govil, P.,**Mazumder, A., Tiwari, A.K., Kumar, S., **(2011)**. Holocene climate variability from the lake sediment core in Larsemann Hills, Antarctica. Journal of Geological Society of India. Vol. 78. Pp. 30-35.
22. PrakashBabu, C., Pattan, J. N., Dutta, J.N.K., Basavaiah, N., Ravi Prasad, G. V., Ray, D.K., **Govil, P.(2010)**. Shift in detrital sedimentation in the eastern Bay of Bengal during the late Quaternary. **J. Earth Syst. Sci.119**, No. 3, 285–295. **(IF: 0.941)**
23. Khare, N., Mazumder, A., **Govil, P.(2010).** Abundance and coiling direction in planktic species Neogloboquadrinapachyderma (Ehernberg) as indicators of

hydrological conditions: Evidence from N-S transect of Indian Ocean. **Current Science,** 98 (8), 1108-1112.**[IF: 0.897]**

24. Khare, N., Mazumder, A., **Govil, P.,**andSingh, V.P. **(2009)**. Trend in Chamber Accretion of NeogloboquadrinaPachyderma (Ehrenberg) along N-S transect in Indian Ocean Sector of southern Ocean. **J. of Geological Society of India** 73, 379-385. **(IF: 0.355)**
25. Khare, N., Mazumder, A., and **Govil, P.(2007)**. Climate Change – Role of proxies for paleoclimatology. **Proc. A. P. Akademi of Sciences, Hyderabad**, vol.11, no.4, pp.291-304.
26. **Govil, P.,** Naidu, P.D., and Radhika. T.K. **(2004)**. Major Turbidity Flows in the Western Indus Fan between 290 and 360 kyr. **Current Science,** 87 (11), 1597-1600. **(IF: 0.60)**
27. **Govil, P.,**Mazumder, A., Chaturvedi, S.K., Khare, N., Srivastava, R., Raina, R., Wanganeo, A., Ravindra, R., and Saraswat, R., 2007. "Antarctica kiJheelonkaBhoo-Bhoutikiyasarvekshan" In: Antarctica AbhiyanRazatJayanti. (Eds.) Manjula Mehta. Publis. VigyanMantralaya. pp. 63-70.
28. Khare, N., **Govil, P.,**Mazumder, A. and Saraswat, R. (2009). "DakshiniMahasagar main SoochmJiwasmikianveshan: BhartiyaYogdaan" In: JalwayuParivartan (Eds.) Manjula Mehta. Publis. VigyaanMantralaya. pp. 83-91.

Conference/Seminar/Workshops/presentations:

1. Azharuddin,S.and**Govil, P.,**(2017)**.** Holocene record of productivity collapse during cold periods from the NE Arabian Sea and their global teleconnection with north-Atlantic cold events,National Seminar on Recent advances and challenges in geochemistry,Environmental and sedimentary geology, AMU, Aligarh abstract volume pp. 22.
2. Azharuddin, S., **Govil, P.,** Singh, A.D., Mishra, R., **(2016)**. "Abrupt productivity shift recorded during early-middle Holocene, in the NE Arabian Sea" in the conference entitled "35th International Geological Congress (35th IGC)" in Cape Town, South Africa during 27th August – 4th September, 2016. (accepted paper no. 4294).
3. Azharuddin, S., **Govil, P.,** Singh, A.D., Mishra, R., **(2016).** Productivity variation pattern in the NE Arabian Sea during the Holocene, in the 3rd NECLIME Asian Meeting held at Birbal Sahni Institute of Palaeosciences, Lucknow, U.P. during 23-27 February, 2016, (page no. 7).
4. Azharuddin, S., **Govil, P.,** Mishra, R., **(2016).** "Holocene record of the monsoonal climate and productivity variations in the NE Arabian Sea" in the conference entitled "Quaternary Climate: Recent Findings and Future Challenges" at the National Institute of Oceanography (NIO) Goa during 28-30 April, 2016.
5. Azharuddin, S., **Govil, P.,** Singh, A.D., Mishra, R., **(2015).** Paleoceanographic study during the Holocene over off Saurashtra NE Arabian Sea, in 25th**Indian Colloquium on Micrpalaeontology and Stratigraphy** held at Aurangabad, Maharashtra, India during 18th-20th December 2015.
6. **Govil, P.,**Mazumder, A., Asthana, R., Tiwari, A., Mishra, R., Ravindra, R. **(2014)**. Multiproxy evidence of Holocene climate variability from the lake sediment core in Schirmacher Oasis region, East Antarctica in "Climate change and environmental

sustainability: Geological records from Poles to Tropics" in Geology Department, Lucknow University, Lucknow.

7. **Govil, P.,**Mazumder, A. and Singh, D. S. **(2014)**. Palaeoenvironmental changes during Holocene evidenced from a sub-glacial lake in Schirmacher Oasis, East Antarctica, in Quaternary Climate Change: New Approaches and Emerging Challenges at Birbal Sahni Institute of Palaeobotany, Lucknow, India.
8. **Govil, P.,** Naidu, P. D., Pokharia, A. K., Chauhan, M. S. & Prasad, V.**(2013)**. Holocene Climate variation and its impact on civilisation presented *in* National Conference on Recent Developments in Plant and Earth Sciences, held on November 28-29 at Birbal Sahni Institute of Palaeobotany, Lucknow.
9. **Govil, P**. & Naidu, P. D. **(2013)**. Sea surface temperature and salinity variations in the Bay of Bengal and Arabian Sea over last 32 ka: Implications on Indian summer monsoon presented *in* 24th Indian Colloquium of Micropaleontology and Stratigraphy, in Wadia Institute of Himalayan Geology, Dehradun during 16-17 Novemebr.
10. **Govil, P.,**Asthana, R., Mazumder, A. and Ravindra, R. **(2011)**. "Holocene climate variability from the lake sediment core in Schirmacher Oasis region, East Antarctica" in 11th International Symposium on Antarctic Earth Sciences from 10th to 15th July, 2011, in University of Edinburgh, Scotland.
11. **Govil, P.,** Naidu, P.D., **(2010)** "Evaporation-Precipitation Changes in the Eastern Arabian Sea for the last 68 ka: Implications on Monsoon Variability" in 2010 Ocean Sciences Meeting, 22-26 February, in Portland, Oregon. (Poster Presentation).
12. **Govil, P.,**Mazumder, A., Ravindra, R., and Khare, N., **(2009)**. "Reconstruction of Holocene paleoproductivity from the Larsemann Hills lake sediment core in Antarctica" XXII Indian Colloquium on Micropaleontology and Stratigraphy, held on 16 – 18 Dec., at National College, Tiruchirapalli.
13. Raza, M.A., Saraswat, R., Khare, N., **Govil, P.,**Mazumder, A., Naik, D.K, **(2009)**. "Micropaleontological study of the Antarctic Lake Sediments: Paleoecological inferences" at National Conference in Goa during October 22-23, 2009, pp.68.
14. **Govil, P.,** Naidu, P. D., **(2009)**. "Quantification of paleo sea surface temperature and sea surface salinity in the Bay of Bengal: Response of monsoon fluctuations" at National Conference in Goa during October 22-23, 2009, pp. 27.
15. Saraswat, R., Khare, N., **Govil, P.,(2008)**. "Inferring the relationship between $\delta^{13}C$ and abundance of Globigerina bulloides, and primary productivity, for the southwestern Indian Ocean" in open science conference to SCAR/IASC/IPY, at St. Petersburg, during 8-11 July. (Poster presentation).
16. Naidu, P.D., **Govil, P.,**Kuhnert, H., **(2008)**. Indian Monsoon Leads the Dansgaard – Oeschger Events of Greenland: New Evidence from Bay of Bengal. American Geophysical Union Fall Meeting, Sanfransisco, pp. 41A – 1420.
17. **Govil, P.,** Naidu, P.D., Mulitza, S., Kuhnert, H. **(2008)**. "Sea surface temperature and sea water δ 18O variations of the eastern Arabian Sea over last 68,000 years: Implications on Evaporation-Precipitation budget" to 45th Annual Convention and Meeting of Indian Geophysical Union at Banaras Hindu University during 5-7, November, 2008 (Poster Presentation).
18. **Govil, P.,** Naidu, P.D., **(2008)**. "Centennial monsoon changes and its effect on global climate" to 96th Indian Science Congress Association, young Scientist Award

Programme: Section 5: Earth System Sciences in Shillong at North-Eastern Hill University during 16th – 17th October, 2008 (Oral).

19. **Govil, P.,** Naidu, P.D., **(2008)**. "Early Deglacial Warming in the Arabian Sea and Bay of Bengal". In International Conference on Terrestrial Planets Evolution through Time, at Physical Research Laboratory, Ahemdabad, during 22nd – 25th January, 2008.
20. Khare, N., Saraswat, R., Chaturvedi, S.K., **Govil P.,** Ravindra, R. **(2007)**. "Foraminiferal characteristics of the recent marine sediments from the South Western Indian Ocean" 44th Indian Geophysical Union held on 21-23 November, at Department of Geophysics, Kurukshetra University, Kurukshetra.
21. Mazumder, A., **Govil, P.,** Singh, V.P., Khare, N. **(2007)**. "Physico-Chemical Control on Number of Chamber and Average Test Size of Neogloboquadrinapachyderma (Ehrenberg) in Southern Indian Ocean" XXI Indian Colloquium on Micropalaeontology and Stratigraphy, held on 16 – 17 Nov., at BSIP, Lucknow.
22. Khare, N., Saraswat, R., Chaturvedi, S.K., **Govil, P.,**Mazumder, A. **(2007)**. "Latitudinal changes in the planktic foraminiferal species distribution along a north-south transect in the southwestern Indian Ocean" XXI Indian Colloquium on Micropalaeontology and Stratigraphy, held on 16 – 17 Nov., at BSIP, Lucknow.
23. **Govil, P.,**Mazumder, A., Khare, N. **(2007)**. "Coiling Direction: A Tool for Deciphering the Paleoclimate in the Southern Ocean Region" XXI Indian Colloquium on Micropalaeontology and Stratigraphy, held on 16 – 17 Nov., at BSIP, Lucknow.
24. Khare, N., **Govil, P.,**Mazumder, A., Saraswat, R., Chopra, S., Balakrishnan,S., Baghel, P.,Ravindra, R. **(2007)**. Study of 10Be concentration in southern high latitudes (Lake and Ocean): A new approach to Paleoclimatology Abstract book of workshop on Accelerator Mass Spectrometry on October 5, 2007 at IUAC, New Delhi Page no. 7.
25. Naidu, P. D., **Govil, P.,**Mulitza, S., Kuhnert, H. **(2007)**. "Monsoon could trigger the global abrupt climate changes: New evidence from the Bay of Bengal" International workshop on Geosphere-Biosphere at Cochin on 20-21 July.
26. **Govil, P.,** Naidu, P.D., Mulitza, S. and Kuhnert, H. **(2006)**. "Paleo Sea Surface Salinity and Paleo Sea Surface Temperature changes in Bay of Bengal: Implications on Global Climate Changes." 2006 AGU Fall Meeting (American Geophysical Union) San Francisco, 13th December.
27. **Govil, P.,** Naidu, P.D. and Mulitza S. **(2006)**. "Synchronous $\delta^{18}O$ changes in Bay of Bengal sediment core and Greenland Ice Core" at the 3rd Annual Convention of the Asia Oceania Geosciences Society at Singapore, 10th to 14th July 2006.
28. Radhika, T.K., **Govil, P.,** Naidu, P.D. **(2004)**. "A gradual decline of Sea Surface Salinity during Late Quaternary period in the Bay of Bengal: Evidence from Planktonic Foraminifera". 41st Annual Convention and National Symposium of the Indian Geophysical Union in December 2004 held at N.G.R.I. Hyderabad.
29. **Govil, P.,**Radhika, T. K. **(2004)**. "Late Quaternary Variations in Planktonic Foraminifera Faunas at the ODP Site 720 in the Arabian Sea". 41st Annual Convention and National Symposium of the Indian Geophysical Union in December 2004 held at N.G.R.I. Hyderabad.
30. **Govil, P.,** Naidu, P. D. **(2003)**. "Variability of Terrigenous Sediment Supply to the Indus Fan during last 360 kyr" of the 40th Annual Convention and National Symposium of the Indian Geophysical Union in December 2003.

(Pawan Govil)
Scientist
BSIP, Lucknow