

PONDICHERRY UNIVERSITY

PROFILE OF THE DEPARTMENT

(FOR REACCREDITATION PURPOSE OF NAAC)

(Wherever applicable select the closest option and strike out the others which are not applicable.

If something is Not Applicable write NA. Please use Separate Sheets wherever necessary)

(Information shall be given for the period from July 2004 to June 2009)

GENERAL INFORMATION

| | | | | | | | | | | | |
|---|------------------------|--|--------------------------------------|--------|----------------------------------|--------|--|--------|--------------|--------|--|
| 1. Name of the Department | | Earth Sciences | | | | | | | | | |
| 2. Location of Institution | | Puducherry | | | | | | | | | |
| 3. Name and Address of Institution | | Pondicherry University R.Venkataraman Nagar, Kalapet, Puducherry | | | | | | | | | |
| Web/URL Home page | | www.pondiuni.edu.in | | | | | | | | | |
| Email | | | | | | | | | | | |
| 4. Year (Date if available) of Establishment | | 1994 | | | | | | | | | |
| 5. Built-up Area in Sq. Ft. | | 13670sq.ft | | | | | | | | | |
| 6. Institutional Autonomy | | | | | | | | | | | |
| 7. Total Student Strength of the Department (2009) | | 95 | | | | | | | | | |
| 8. Programs Offered: Integrated M.Sc. Applied Geology, M.Sc. Applied Geology, Ph.D Earth Sciences | | | | | | | | | | | |
| 8.(i) Post-Graduate: (Please specify courses. If necessary use additional sheets) 2004-2009 | | | | | | | | | | | |
| Total Intake | Total Student Strength | | Students from Pondicherry University | | Students from Other Universities | | Students from Other States | | NRI Students | | |
| | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | |
| M.Sc 76 | 56 | 16 | - | - | - | - | 56 | 16 | - | - | |
| Integ. M.Sc 41 | 15 | 17 | 6 | 10 | - | - | 9 | 7 | - | - | |
| 8.(ii) Ph.D.: (Please specify subjects. If necessary use additional sheets) 2004 - 2009 | | | | | | | | | | | |
| Total Intake | Total Student Strength | | Students from Pondicherry University | | Students from Other Universities | | Students from Other States | | NRI Students | | |
| | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | |
| 24 | 20 | 4 | 14 | 3 | - | - | 6 | 1 | - | - | |
| 9. Number of Permanent Teaching Faculty | | | | | | | Male: 6 Female: - Total: 6 | | | | |
| 10. Number of Teaching Posts Sanctioned | | | | | | | Professor: 3 Reader: 4 Lecturer: 9 Others (Please specify): Lab. Assistant: -nil- | | | | |
| 11. Number of Teaching Posts Occupied | | | | | | | Professor: 2 Reader: 1 Lecturer: 3 Others (Please specify): | | | | |

| 12. List of Technical Staff: | | | | | | | |
|---|----------------|------|---------------|---|-----------|----------------------|-----------------------|
| Sl. No. | Name | Sex | Date of Birth | Date of Super-annuation | Technical | Designation | Highest Qualification |
| 1. | S. Balamurugan | Male | 19.09.1971 | On Contract | | Senior Lab Assistant | M.Sc |
| 2. | R. Arunachalam | Male | 28.12.1980 | On Contract | | Junior Lab Assistant | M.Sc |
| 3. | N. Vetriselvan | Male | 13.4.1981 | On Contract | | Junior Lab Assistant | M.Sc |
| 4. | G. Karunakaran | Male | 21.8.1976 | On Contract | | Lab Attendant | B.M.M |
| 13. Number of Administrative Staff | | | | Clerical: Male: 1 Female: - Total: 1 Attenders: Male: 1 Female: - Total: 1 Peons: - Male: - Female: - Total: - | | | |
| 14. Whether the Institution has been assessed and accredited by any Agency like NAAC/NBA/AICTE/DEC/etc.? | | | | NAAC has commended the performance of Dept of Earth Sciences during the last re-accreditation in the year 2006. | | | |
| 15. What are the admission policies in your institution? (Please strike our whichever is not applicable) | | | | | | | |
| (i) Admission based on Entrance exam (National level) only. | | | | | | | |
| (ii) Percentage of Reservations available for Admission under categories SC-2 + 1/ST-1+1/OBC /Sports-1/NRI-2/ Women / Category Percentage Internal students /Physically Challenged /Domicile of State / Other State students / Wards of employees, etc. | | | | | | | |
| (iii) Any others (please specify): | | | | | | | |
| 16. Is there any review of the Admission Policy? | | | | | | | |
| 17. When was the Admission Policy reviewed of late? | | | | | | | |
| 18. How are the courses / programmes advertised? | | | | Besides advertisement made by the University in website, newspaper etc. the Dept of Earth Sciences circulates the admission notification to Geology Deptts in various parts of the country, and whenever the faculty members of the Dept visit other institutions they project the profile and performance of the Dept to prosperous students.. | | | |
| 19. Number of Working days per semester? | | | | About 110 days | | | |
| 20. Number of Teaching days per semester? | | | | About 90 days | | | |
| 21. Are there any policy guidelines for curriculum revision? | | | | Curriculum is updated or revised periodically on regular basis. | | | |
| 22. Is there any academic body for design and / or review of curriculum? | | | | School Board | | | |
| 23. When was the curriculum last revised? | | | | 2008 | | | |
| 24. Are the curricula revised for all programmes simultaneously or partially? | | | | Curricula revised for M.Sc Applied Geology course | | | |

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| 25. Does the institution have credit transfer system? | |
| 26. Methods of Instruction followed | Class room teaching, lab practices, field training programmes, professional training and independent project work. |
| 27. Exam. System followed | As prescribed by the University |
| 28. Is there Internal Assessment? If yes, what percentage of the total is this and in what faculty? | 40% internal assessment for theory courses, and 50% internal assessment for lab courses. |
| 29. Is there external valuation? | No. |
| 30. Has the institution introduced any innovations in exam? | |
| 31. Are the exams held as per schedule? If not, give reasons. | Exams are held as per schedule. |
| 32. Are the results declared as per schedule? If not, give reasons. | Provisional results are declared by the Dept as per schedule. |
| 33. Grants received from various sources | |
| 34. Fee structure per annum: | As prescribed by the University. |

GENERAL AND INFRASTRUCTURAL FACILITIES

| | |
|--|--|
| 35. Does the Institution have Dept. Libraries? Are these connected with the main Library? | There is a Dept Library consisting of books donated by retired scientists and collected through the efforts of faculty. All books and journals on Earth Sciences purchased by the University are maintained by the University Library. |
| 36. Area of the Library in Sq. Ft. | 150 sq ft |
| 37. Number of Books in the Library Number of Text books in the Library Number of Reference books in Library Number of Audio cassettes Number of Video cassettes Number of CD ROMS | 75 300 |
| 38. Number of Books purchased last year by Library | |
| 39. Is there a Computer Laboratory? | Yes |
| 40. Area of the Computer Laboratory in Sq.Ft. | 200 sq ft |
| 41. Number of Computers in the Institution | 8 |
| 42. Number of Computers Available for use by Students | 8 |
| 43. Number of Computers Available for Staff | 6 |
| 44. Is the Administration of the Institution computerized? | |
| 45. Does the Institution have an Auditorium? | Yes |
| 46. Does the Institution have Canteen facilities? | Yes |
| 47. Does the Institution have a Student Centre? | |
| 48. Does the Institution have facilities for Indoor Games / Reading Room / etc. ? | Yes |
| 49. Number of Class Rooms in the Institution Number of Laboratories Number of Reading Rooms Number of Staff Rooms Number of Common Rooms Number of Rest Rooms | 3 12 1 6 |

RESEARCH AND DEVELOPMENT

| 50. Are the Faculty Members Active in Research? | Yes | | | | | | |
|---|------------------------------------|----------------|-------------|-------------|---------------------|---|----------------------------|
| 51. Research Projects Completed during last 5 years with Details: | | | | | | | |
| Name of the Project | Name of the Principal Investigator | Funding Agency | Thrust Area | Total Grant | Duration with Years | Number of Publications under the Research Project | Number of Patents, if any. |
| Setting up of National Facility for Geochronology and Isotope Geosciences | Prof.S. Balakrishnan | DST | | 376 lakhs | 2004 – 2009 | 4 | |
| Mapping of Areas of Inundation from Marakkanam to Cuddalore, East Coast, Indian | Dr.D. Senthil Nathan | DST | | 4.6 lakhs | 2005 – 2006 | 1 | |
| Geochemistry of the alluvial sediments of the Ganga River plain | Dr.Pramod Singh | DST | | 8.28lakhs | 2003 – 2007 | 2 | |
| | | | | | | | |

52. Ongoing Research Projects, if any, with Details:

(Please use separate sheet if necessary)

| Name of the Project | Name of the Principal Investigator | Funding Agency | Total Grant | Duration with Years | Number of Publications under the Research Project | Number of Patents, if any. |
|---|------------------------------------|----------------|-------------|---------------------|---|----------------------------|
| Geo-chronological Studies on Uranium Mineralizationtracer solution. | Prof.S. Balakrishnan | BRNS | 16.9 lakhs | 2008 – 2011 | | |
| Measurement of cosmogenic ¹⁰ Be and ²⁶ Al abundances in quartz to determine exposure ages of granulites and gneisses from South India | Prof.S. Balakrishnan | IUAC | 5 lakhs | 2007 – 2010 | | |
| EPR spectroscopic study of quartz from hydrothermal ore deposits: Significance in minerals exploration. | Prof.M.S. Pandian | DST | 25.37 lakhs | 2008 – 2011 | 1 | |
| Comparison of fluid circulation processes in granite intrusion related environments: developments of models for economic evaluation of granite related hydrothermal processes | Prof.M.S. Pandian | DST-RFBR | 7.40 lakhs. | 2009- 2011 | | |
| ¹⁴⁶ Sm- ¹⁴² Nd isotopic studies of meteorites and Earth materials: Early chemical differentiation of bulk silicate part of planetary bodies | Dr.Rajneesh Bhutani | PLANEX | 40 lakhs | 2007 – 2010 | | |
| Geochemical tectonics across Cauvery Shear Zone, South India | Dr.Rajneesh Bhutani | DST | 11.4 lakhs | 2005 - 2009 | | |
| Drill core sampling of the quaternary sediments of the Cauvery Delta between Mannargudi and Pennar River for geochemical and paleo environmental studies | Dr.Pramod Singh | DST | 54 lakhs | 2006 - 2011 | | |

| Name of the Project | Name of the Principal Investigator | Funding Agency | Total Grant | Duration with Years | Number of Publications under the Research Project | Number of Patents, if any. |
|--|------------------------------------|----------------|-------------|---------------------|---|----------------------------|
| Be-10 measurements using AMS on sediment core samples from Indian Ocean and Inland water bodies to determine rate of sedimentation: Significance to paleoclimate studies | Dr.Pramod Singh | IUAC | 5 lakhs | 2007 – 2010 | | |
| Emplacement mechanism and post emplacement evolution of the massif type anorthosite at Bolangir, Eastern Ghats Belt India. | Dr.Subhadip Bhadra | DST | 3.24 lakhs | 2007 – 2010 | | |
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|--|----------------------------------|---|--|----------------------|
| 53. Has the Institution organized any Research Meetings During the last 5 years? | | Yes. | | |
| 54. Details of Research Meeting, if any, organized during last 5 years. (Please give separate list with full details, wherever necessary) | | | | |
| Name of the Meeting | Level (National / International) | Type of Meeting (Seminar/ Workshop/ Conference/ Symposia/ Other (specify)) | Number of Persons who attended (Male: Female: Total:) | Dates of the Meeting |
| DST-ESS division workshop on Shallow Sub-surface Studies. | National | Workshop | M-45, F-7, Total 52 | 31.1.2004 & 1.2.2004 |
| PAC-GMM meeting of DST-Fast Track program | National | Review of ongoing projects and new proposals | M-32, F-6, Total 38 | 5.1.2007 & 6.1.2007 |
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| | | | | |
| 55. Has the Department Participated in any Special Schemes like UGC DRS / DSA / COSIP / ASIST / DST FIST / DBT , others. (Please Specify). | | 1) Dept of Earth Sciences received grant of Rs.92 lakhs under DST-FIST program (2004-2008) 2) Dept of Earth Sciences is receiving support under UGC-SAP at DRS level (2009-2014) | | |
| 56. Has the Institution introduced any Innovations in Teaching (Please give details) | | Dept of Earth Sciences offers 3 intensive field training programmes of 3 weeks duration, and every student undertakes independent project work. Students are trained in generating data using sophisticated equipments available in the Department. | | |

INSTITUTIONAL / DEPARTMENTAL INFORMATION

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|---|--------------|
| 57. Annual Budget of the Institution / Department during last 5 years. | Rs. 12 lakhs |
| 58. Research Funds per Faculty Member during last 5 years | Rs. 37 lakhs |
| 59. Ratio of Students to Faculty during last 5 years | 10 : 1 |
| 60. Ratio of Number of Applications to Available Intake during last 5 years | 12 : 1 |
| 61. Ratio of Number of Students Appearing for Exam. to Number of Successful Candidates during last 5 years (Final exam. Only) | 1.00 : 0.97 |

62. Number of Students Admitted to Various Programs (UG /PG / Certificate/ Diploma Courses) during the last 5 years

| Program | Year | General | | SC | | ST | | Cat. 1 | | OBC | | Total | |
|----------|-------|---------|------|------|------|------|------|--------|------|------|------|-------|------|
| | | Male | Fem. | Male | Fem. | Male | Fem. | Male | Fem. | Male | Fem. | Male | Fem. |
| M.Sc | 04-05 | 6 | 4 | 4 | - | 1 | - | - | - | - | - | 11 | 4 |
| M.Sc | 05-06 | 8 | 2 | 4 | 1 | - | - | - | - | - | - | 12 | 3 |
| Int.M.Sc | 05-06 | 1 | 4 | 2 | 1 | - | - | - | - | - | - | 3 | 5 |
| M.Sc | 06-07 | 9 | - | 6 | - | - | - | - | - | - | - | 15 | - |
| Int.M.Sc | 06-07 | 4 | - | 3 | 1 | - | - | - | - | 1 | 3 | 8 | 4 |
| M.Sc | 07-08 | 1 | 1 | 3 | - | - | - | - | - | 10 | - | 14 | 1 |
| Int.M.Sc | 07-08 | 3 | 1 | 1 | 3 | - | - | - | - | 1 | 3 | 5 | 7 |
| M.Sc | 08-09 | 4 | 5 | 2 | 2 | 1 | - | - | - | 1 | 1 | 8 | 8 |
| Int.M.Sc | 08-09 | 3 | 2 | 2 | - | 1 | - | - | - | - | 1 | 6 | 3 |
| M.Phil | 04-05 | 2 | - | 1 | - | - | - | - | - | - | - | 3 | - |
| Ph.D | 06-07 | 2 | - | 2 | - | 1 | - | - | - | 2 | - | 7 | - |
| Ph.D | 07-08 | - | 2 | 3 | - | - | - | - | - | 1 | 1 | 4 | 3 |
| Ph.D | 08-09 | 1 | - | 3 | - | - | - | - | - | - | - | 4 | - |

63. Number of Student Drop-outs in Various Programs (UG /PG / Certificate/ Diploma Courses) during the last 5 years

| Program | Year | General | | SC | | ST | | Cat. 1 | | OBC | | Total | |
|----------|-------|---------|------|------|------|------|------|--------|------|------|------|-------|------|
| | | Male | Fem. | Male | Fem. | Male | Fem. | Male | Fem. | Male | Fem. | Male | Fem. |
| M.Sc | 04-05 | - | - | - | - | - | - | - | - | - | - | - | - |
| M.Sc | 05-06 | - | - | - | - | - | - | - | - | - | - | - | - |
| Int.M.Sc | 05-06 | - | - | 1 | - | - | - | - | - | - | - | 1 | - |
| M.Sc | 06-07 | - | - | 1 | - | - | - | - | - | - | - | 1 | - |
| Int.M.Sc | 06-07 | 3 | - | 2 | - | - | - | - | - | - | - | 5 | - |
| M.Sc | 07-08 | - | - | - | - | - | - | - | - | - | - | - | - |
| Int.M.Sc | 07-08 | - | - | 1 | 1 | - | - | - | - | - | - | 1 | 1 |
| M.Sc | 08-09 | - | - | 1 | - | - | - | - | - | - | - | 1 | - |
| Int.M.Sc | 08-09 | - | - | 1 | - | - | - | - | - | - | 1 | 1 | 1 |
| M.Phil | 04-05 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ph.D | 06-07 | - | - | 1 | - | - | - | - | - | - | - | - | - |
| Ph.D | 07-08 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ph.D | 08-09 | - | - | - | - | - | - | - | - | - | - | - | - |

64. Number of Students who Appeared for Final Exam. In Various Programs (UG /PG / Certificate/ Diploma Courses) during the last 5 years

| Program | Year | General | | SC | | ST | | Cat. 1 | | OBC | | Total | |
|---------|-------|---------|------|------|------|------|------|--------|------|------|------|-------|------|
| | | Male | Fem. | Male | Fem. | Male | Fem. | Male | Fem. | Male | Fem. | Male | Fem. |
| M.Sc | 04-05 | 2 | 6 | 3 | - | - | - | - | - | - | - | 5 | 6 |
| M.Sc | 05-06 | 6 | 4 | 4 | - | 1 | - | - | - | - | - | 11 | 4 |
| M.Sc | 06-07 | 8 | 2 | 4 | 1 | - | - | - | - | - | - | 12 | 3 |
| M.Sc | 07-08 | 9 | - | 5 | - | - | - | - | - | - | - | 14 | - |
| M.Sc | 08-09 | 1 | 1 | 3 | - | - | - | - | - | 10 | - | 14 | 1 |
| M.Phil | 05-06 | 2 | - | 1 | - | - | - | - | - | - | - | 3 | - |

65. Number of Students who Passed Final Exam. In Various Programs (UG /PG / Certificate/ Diploma Courses) during the last 5 years

| Program | Year | General | | SC | | ST | | Cat. 1 | | OBC | | Total | |
|---------|-------|---------|------|------|------|------|------|--------|------|------|------|-------|------|
| | | Male | Fem. | Male | Fem. | Male | Fem. | Male | Fem. | Male | Fem. | Male | Fem. |
| M.Sc | 04-05 | 2 | 6 | 3 | - | - | - | - | - | - | - | 5 | 6 |
| M.Sc | 05-06 | 6 | 4 | 4 | - | 1 | - | - | - | - | - | 11 | 4 |
| M.Sc | 06-07 | 8 | 2 | 4 | 1 | - | - | - | - | - | - | 12 | 3 |
| M.Sc | 07-08 | 8 | - | 3 | - | - | - | - | - | - | - | 11 | - |
| M.Sc | 08-09 | 1 | 1 | 2 | - | - | - | - | - | 10 | - | 13 | 1 |
| M.Phil | 05-06 | 2 | - | 1 | - | - | - | - | - | - | - | 3 | - |

66. Number of Students who Secured University Ranks (please specify) in Various Programs (UG /PG / Certificate/ Diploma Courses) during the last 5 years

| Program | Year | General | | SC | | ST | | Cat. 1 | | OBC | | Total | |
|--------------|-------|---------|------|------|------|------|------|--------|------|------|------|-------|------|
| | | Male | Fem. | Male | Fem. | Male | Fem. | Male | Fem. | Male | Fem. | Male | Fem. |
| M.Sc. | 03-05 | | 1 | | | | | | | | | | 1 |
| | 04-06 | 1 | | | | | | | | | | 1 | |
| | 05-07 | 1 | | | | | | | | | | 1 | |
| | 06-08 | 1 | | | | | | | | | | 1 | |
| | 07-09 | | | | | | | | | 1 | | 1 | |
| Total | | | | | | | | | | | | 4 | 1 |

67. Number of Students who won Recognitions in Various Fields (Academic / Cultural / Sports, et cetera (please specify) in Various Programs (UG /PG / Certificate/ Diploma Courses) during the last 5 years

| Program & Field of Recognition | Year | General | | SC | | ST | | Cat. 1 | | OBC | | Total | |
|--------------------------------|------|---------|------|------|------|------|------|--------|------|------|------|-------|------|
| | | Male | Fem. | Male | Fem. | Male | Fem. | Male | Fem. | Male | Fem. | Male | Fem. |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

68. Any Other Information

69. Contact Information of Institution / Department

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|--|--|
| Name of Contact Person | Dr.M.S. Pandian |
| Address for Communication | Prof. & Head, Department of Earth Sciences |
| FAX Numbers | 0413-2655008 |
| Telephone Numbers (please include codes) | 0413 – 2654425 |
| E-Mails | mspanian59@hotmail.com |

70. Any efforts made by the Department to promote Campus Recruitment -

Placement brochure is circulated to potential employers in private sector.

71. Healthy practices of the Department.

- 1) Development programmes of the Dept are discussed in Faculty meeting.
- 2) Sophisticated analytical facilities available in the Dept are made available to users from various parts of the country.
- 3) All faculty members participate in field training programmes of students.
- 4) A colloquium is organized in the Dept on Thursday afternoon. Faculty from various Deptts and research scholars of the Dept deliver talks on topics of general interest.
- 5) Students organize a freshers' introduction meet in the beginning of academic year and a farewell function for passing out students at the end of academic year, in which all students, staff and faculty participate.

ADDITIONAL INFORMATION

Are there any overseas students?

No.

Has the department organized

- Lectures:

Guest lectures by eminent scientists are organized every year.

- Workshops:

Organised a DST sponsored workshop on Shallow Sub-surface Studies Jan 31 – Feb 1, 2004.

Organised 8th PLANEX Workshop on “Exploration of Solar System Objects” during Dec. 24-28, 2007.

Organized a DST sponsored training programme on “Application of radiogenic isotopes in geochronology and geochemistry” during 15-20 December 2008.

- Seminars:

Two seminars on “Recent trends in Geosciences” and “Human Resource Development in Geosciences” were organized during 2006 on the occasion of Decennial celebration of the University.

- Conferences:

If yes, what is the nature and extent of student participation?

No. of students who have passed the following during the last six years

| | | |
|---------------------------------------|---|----|
| ▪ NET | : | 17 |
| ▪ SLET | : | - |
| ▪ CAT | : | - |
| ▪ TOEFEL | : | 1 |
| ▪ GRE | : | - |
| ▪ G-MAT | : | - |
| ▪ KAS | : | - |
| ▪ IAS | : | - |
| ▪ Defense entrance | : | - |
| ▪ Others (UPSC exam for Geologist) | : | 25 |

Is there any Student Counseling center in the department. No.

Is there any Grievance Redressal cell? Yes, at the University level.

When did the Alumni – Association of the department got established? How many members are actively involved ? Give enrolment statistics.

Efforts are being made to constitute an Alumni Association in the Dept.

Place:

Date:

Signature with Seal of Chairperson