

# SECTION B1

## Profile of the University





## Profile of the University

### 1. Name and Address of the University:

Name:	Tata Institute of Fundamental Research		
Address:	Homi Bhabha Road, Colaba		
City: <b>Mumbai</b>	Pin: <b>400 005</b>	State: <b>Maharashtra</b>	
Website: <a href="http://www.tifr.res.in">www.tifr.res.in</a>			

### 2. For communication:

Designation	Name	Telephone	Email
<b>Director (having powers of Vice Chancellor)</b>	Prof. Sandip P. Trivedi	Off: 02222782306 Res: 02222804710 Mob : 9892105000 Fax : 02222804501	director@tifr.res.in
<b>Dean, Graduate Studies (IQAC Coordinator)</b>	Prof. Amol Dighe	Off: 02222782423 Res: 02222783423 Mob : 9892100404 Fax : 02222782777	deangs@tifr.res.in
<b>Registrar</b>	Wg. Cdr. George Antony (retd)	Off: 02222782315 Res: 02222783315 Mob : 9892105000 Fax : 0222280471	registrar@tifr.res.in
<b>Assistant Registrar (Academic)</b>	Mr. S. Krishnamurthy	Off: 02222782875 Res: 02227468212 Mob : 9892100407 Fax : 02222804555	ast_reguniv@tifr.res.in

## 3. Status of the University:

University under Section 3 of UGC (Deemed University)

TIFR is a National Centre of the Government of India for Nuclear Science and Mathematics and functions as an Autonomous Institution of the Department of Atomic Energy (DAE), Government of India.

## 4. Type of University: Unitary

## 5. Source of funding:

Department of Atomic Energy (DAE), Government of India.

## 6. a. Date of establishment of the university:

07/05/2002

## b. Prior to the establishment of the university, was it a/an

- |                               |                      |
|-------------------------------|----------------------|
| i. PG Centre                  | No                   |
| ii. Affiliated College        | No                   |
| iii. Constituent College      | No                   |
| iv. Autonomous College        | No                   |
| v. Any other (please specify) | Research Institute # |

If yes, give the date of establishment

01/06/1945

# National Centre of the Government of India for Nuclear Science and Mathematics.  
Before 2002, TIFR students were awarded Ph.D. degrees by the University of Mumbai.

7. Date of recognition as a university by UGC or any other national agency:

	Under Section	Dd	mm	Yyyy	Remarks
i.	2f of UGC*	—	—	—	—
ii.	12B of UGC *	—	—	—	—
iii.	3 of UGC #	07	05	2002	Deemed University
iv.	Any other ^ (specify)	—	—	—	—

# Notification of UGC enclosed as Annexure B1-A.

8. Has the university been recognized

a) By UGC as a University with Potential for Excellence?

No

If yes, date of recognition : .....NA..... (dd/mm/yyyy)

b) For its performance by any other governmental agency?

Yes

If yes, Name of the agency DAE \* and

date of recognition: 03.01.1957 dd/mm/yyyy)

TIFR was declared to be the “National Centre of the Government of India for Nuclear Science and Mathematics”

\*Vide Resolution dated 3<sup>rd</sup> January, 1957. See Annexure B1-B.

Published in the Gazette of India dated 17<sup>th</sup> January, 1957. See Annexure B1-C

9. Does the university have off-campus centres? Yes

	Off-campus	Name of the Department #	Acronym	Year of establishment	Date of Recognition
1.	Mumbai	Homi Bhabha Centre for Science Education	HBCSE	1974	07/05/2002
2.	Pune	National Centre for Radio Astrophysics	NCRA	1994	07/05/2002
3.	Bengaluru	National Centre for Biological Sciences	NCBS	1991	07/05/2002
		Centre for Applicable Mathematics	CAM	1972	07/05/2002 <sup>##</sup>
		International Centre for Theoretical Sciences	ICTS	2007	—
4.	Hyderabad	TIFR Centre for Interdisciplinary Sciences ###	TCIS	2010	—

# These are Research Centres of TIFR, mostly focusing on a particular discipline. Each of these is equivalent to a Department of the TIFR Deemed University, and denoted as such in this Self-Study Report.

## CAM is administratively a part of the School of Mathematics in Mumbai, and hence does not find an explicit mention in the UGC Notification. However it was reviewed by UGC in 2002 along with the rest of TIFR while considering its request for the Deemed University status, with positive recommendations.

### This is the first Research Centre in the Hyderabad campus.

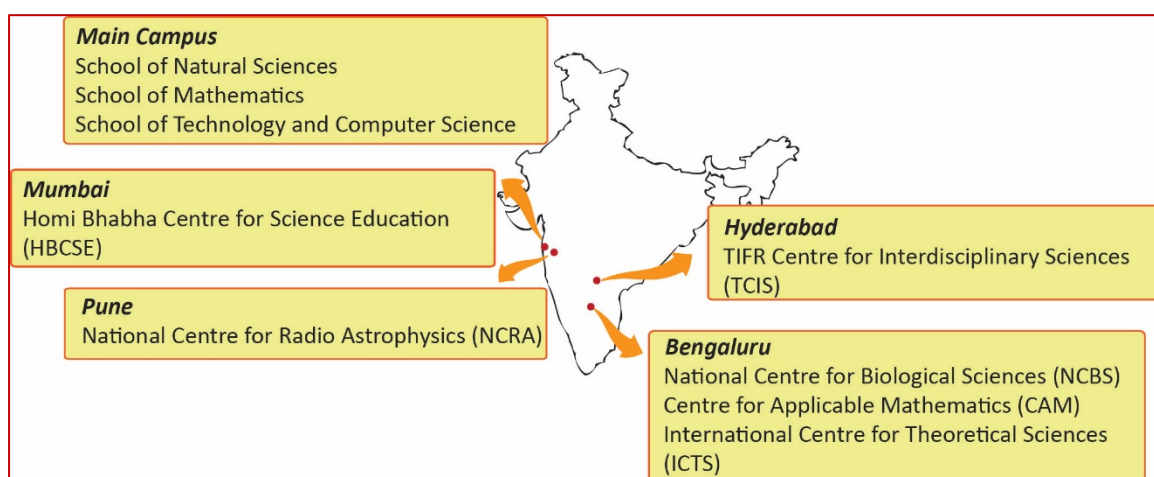
10. Does the university have off-shore campuses?

No

11. Location of the campuses and area:

	Campus	Research Centre	Location	Urban/Rural	Campus area (acres)	Built-up area (sq.m.)
	Main Campus	Main Campus	Colaba, Mumbai	Urban	15	32606
1.	Mumbai	HBCSE	Mankhurd, Mumbai	Urban	5.5	13488
2.	Pune	NCRA	Ganeshkind, Pune	Urban	22	5159
3.	Bengaluru	NCBS	Bellary Road, Bengaluru	Urban	25	17122
		CAM	Yelahanka New Town, Bengaluru	Urban	0.5	1079
		ICTS	Hesarghatta, Bengaluru	Rural	18	20520
4.	Hyderabad	TCIS	Gachibowli, Hyderabad	Urban	209	11613 # (First bldg.)
			[Temporary transit campus: Narsingi, Hyderabad]	Urban	0.3058	5017

# The first building is expected to be functional within a few months. More buildings are planned, and will come up as the campus grows.



12. Provide information on the following: In case of multi-campus University, please provide campus-wise information.

[Please see the Table below. For items marked with @, details are given in Annexure B1-D.](#)

Campus	Main Campus	Mumbai	Pune	Bengaluru			Hyderabad
Facility		HBCSE	NCRA	NCBS	CAM	ICTS	TCIS
Auditorium/seminar complex with infrastructural facilities	1x 1200 1x 150+ 3x 30+	1x 180 1x 80 2x 60	1x 100+ 1x 50+	2x 100+ 3x 60+	1x 60	1x 350 1x 100 1x 50	1x 150 1x 70
Seminar halls /classrooms	15x 20+	4x 20+	2x 15+	6x 15+	2x 30	1x 30	2x 20
Sports facilities:							
Playground	√	√	√	√	—	√	√
Swimming pool	—	—	—	√	—	√	—
Gymnasium	√	√	—	√	—	√	√
Any other (specify)	@	@	—	@	—	@	@
Hostels:							
Number of hostels	3	2	1	3	1	@	4
Total capacity	290	104	30	186	39	@	65
Number of boys	184	8	16	69	16	@	43
Number of girls	62	9	3	76	1	@	12
Facilities	@	@	@	@	@	@	@
Residential facilities for faculty and non-teaching staff	660		√	96	√	26	14 (leased)
Cafeteria	4	√	√	√	√	√	√
Health Centre facilities:							
Inpatient	√	@	√	√	@	√	@
Outpatient	√	@	√	√	√	√	√
Ambulance	√	—	@	√	@	√	@
Emergency care	√	—	@	√	@	√	@



Campus	Main Campus	Mumbai	Pune	Bengaluru			Hyderabad
Facility		HBCSE	NCRA	NCBS	CAM	ICTS	TCIS
Dispensary	√	@	√	√	@	√	@
Miscellaneous Facilities							
Banking	√	—	√	√	—	@	@
Post office	Nearby	—	Nearby	—	—	—	@
Book shops	—	—	—	—	—	—	@
Photocopying	√	√	√	√	√	√	√
Photography	√	----	—	—	—	—	—
Transport facilities to cater to the needs of the students and staff	√	—	@	√	@	√	√
Facilities for persons with disabilities	√	√	—	√	—	√	√
Animal house	√	N. A.	N. A.	√	N.A.	N.A.	@
Incinerator for laboratories	@	N. A.	N. A.	√	N.A.	N.A.	—
Power house	√	√	√	√	—	√	√
Waste management	√	—	√	√	—	√	—
Central workshop	@	—	—	—	—	—	—
Field stations	@@	N.A.	@@	@@	N.A	N.A.	N.A

@ Please refer to Annexure **B1-D**

@@ Please refer to Annexure **B1-E**

13. Number of institutions affiliated to the university

None

14. Does the University Act provide for conferment of autonomy (as recognized by the UGC) to its affiliated institutions? If yes, give the number of autonomous colleges under the jurisdiction of the University

Not applicable

15. Furnish the following information:

(As on Jan 1, 2016) Number of students Department-wise:

Campus	Department #	Students			
		I-Ph.D.	Ph.D.	M.Sc.	Total
Main campus	Mathematics (Math)	6	22	—	28
	Astronomy and Astrophysics (DAA)	11	09	—	20
	Biological Sciences (DBS)	14	28	29	71
	Chemical Sciences (DCS)	10	24	—	34
	Condensed Matter Physics	12	14	—	26
	High Energy Physics (DHEP)	9	10	—	19
	Nuclear and Atomic physics (DNAP)	12	13	—	25
	Theoretical Physics (DTP)	21	13	—	34
	Technology & Computer Sc. (STCS)	6	12	—	18
Mumbai	HBCSE	—	15	—	15
Pune	NCRA	3	17	—	20
Bengaluru	NCBS	57	99	20	176
	CAM	17	1	—	18
	ICTS	6	10	—	16
Hyderabad	TCIS	16	42	—	58
<b>Total</b>		<b>205</b>	<b>329</b>	<b>49</b>	<b>578</b>

# Note that all the Research Centres are treated as Departments.

16. Does the university conform to the specification of Degrees as enlisted by the UGC?

Yes

If the university uses any other nomenclatures, please specify.

Not Applicable

17. Academic programmes offered by the university departments at present, under the following categories: (Enclose the list of academic programmes offered)

Programmes	Number	List
Ph.D.	6	Biology, Chemistry, Computer Science, Mathematics, Physics, Science Education
Integrated M.Sc. - Ph.D.	5	Biology, Chemistry, Computer Science, Mathematics, Physics
M.Phil. #	6	Biology, Chemistry, Computer Science, Mathematics, Physics, Science Education
M.Sc. ##	6	Biology, Wildlife Biology, Chemistry, Computer Science, Mathematics, Physics
<b>Total</b>	<b>23</b>	

# There is no separate M.Phil. Programme. M.Phil. is an exit degree for students in the Ph.D. programme who have completed the specified M.Phil. requirements.

## There are separate M.Sc. programmes in Biology and Wildlife Biology. For the other disciplines, M.Sc. is an exit degree for Integrated Ph.D. students who have completed the specified M.Sc. requirements.

18. Number of working days during the last academic year (Aug 2014-- July 2015)

Main Campus	Mumbai	Pune	Bengaluru			Hyderabad
	HBCSE	NCRA	NCBS	CAM	ICTS	TCIS
245	245	245	246	244	243	245

19. Number of teaching days during the past four academic years.

Academic year	Main campus		Pune	Bengaluru			Hyderabad
	Mumbai	HBCSE	NCRA	NCBS	CAM	ICTS	TCIS
2011-12	200	162	190	190	190	—	—
2012-13	200	160	190	190	190	—	190
2013-14	200	134 ##	190	190	190	190	190
2014-15	200	172	190	190	190	190	190

# Note that in the main campus as well as in some of the Centres, classes are held often on weekends. Also, apart from the two main semesters, Winter Term short courses/pedagogical workshops are also held.

## No incoming Ph.D. students this year, hence less number of classes held.

20. Does the university have a department of Teacher Education?

No

21. Does the university have a teaching department of Physical Education?

No

22. In the case of Private and Deemed Universities, please indicate whether professional programmes are being offered?

No

If yes, please enclose approval / recognition details issued by the statutory body governing the programme.

Not Applicable

23. Has the university been reviewed by any regulatory authority? If so, furnish a copy of the report and action taken there upon.

The TIFR Deemed University, including the Main Campus at Colaba and the Off-campuses at Mumbai (HBCSE), Pune (NCRA) and Bengaluru (NCBS, CAM) was reviewed by a UGC Review Committee in 2010.

The Report of the Review Committee is attached as **Annexure B1-F**.

The action taken report is attached as **Annexure B1-G**.

In addition, most of the departments / disciplines have also undergone peer reviews from committees consisting of eminent international researchers. The years in which these reviews took place are given in the following Table.

Campus	Main campus								
Department	DAA	DCMP&MS	DNAP	DHEP	DTP	DCS	DBS	Maths	STCS
Reviewed in	2009	2007	2008	2008	2006	2007	2006	2006	—

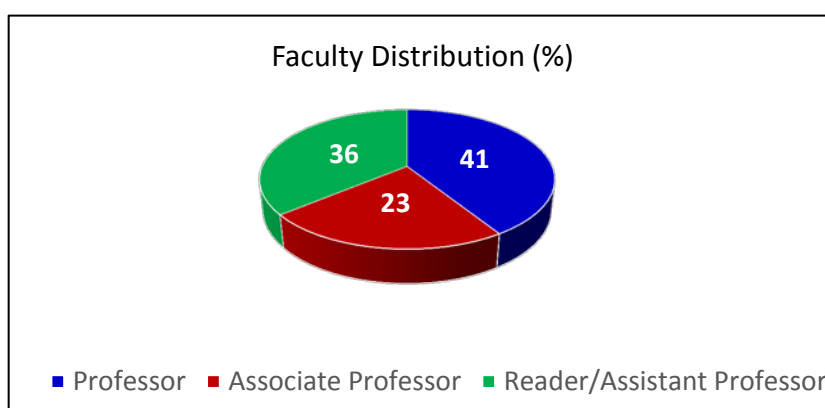
Campus	Mumbai	Pune	Bengaluru			Hyderabad
Department	HBCSE	NCRA	NCBS	CAM	ICTS	TCIS
Reviewed in	2014	2005	2010	2007	—	—

## 24. Number of positions in the university:

## Faculty members:

Campus	Department	Professor	Associate Professor	Reader/Fellow (equivalent to Assistant Professor)	Total
Main campus	Math	15	9	5	29
	DAA	10	3	2	15
	DBS	5	5	4	14
	DCS	6	4	4	14
	DCMPMS	7	8	1	16
	DHEP	9	2	3	14
	DNAP	8	4	2	14
	DTP	12	3	6	21
	STCS	3	4	7	14
Mumbai	HBCSE	3	5	8	16
Pune	NCRA	4	5	9	18
Bengaluru	NCBS	10	8	16	34
	CAM	6	3	5	14
	ICTS	3	1	9	13
Hyderabad	TCIS	7	0	13	20
<b>Total</b>		<b>109</b>	<b>64</b>	<b>94</b>	<b>267</b>

# The total number of sanctioned faculty positions for TIFR is 342. Positions are not sanctioned separately for different Departments or centres.



## Non Teaching Staff: (as on Jan 1, 2016)

Campus	Research Centre	Scientific & Technical	Admin & Auxiliary	Total
Main Campus	Colaba	553	403	956
Mumbai	HBCSE	27	27	54
Pune	NCRA	149	78	227
Bengaluru	NCBS	29	24	53
	CAM	3	12	15
	ICTS	5	2	7
Hyderabad	TCIS	11 ##	61 ##	72
<b>Total</b>		<b>777</b>	<b>607</b>	<b>1384</b>

## TCIS: As the Research Centre is very young, currently many of these staff members are either temporary or on contract.

## 25. Qualifications of the teaching staff

Highest qualification	Professor (H) and above		Associate Professor (G)		Reader (F)		Total
	*M	*F	*M	*F	*M	*F	
D.Sc.	—	—	—	—	—	—	—
Ph.D.	97	12	51	13	79	15	267
M.Phil.	—	—	—	—	—	—	—
PG	—	—	—	—	—	—	—

\*All the teaching staff have a Ph.D. degree at the time of joining.

## 26. Emeritus, Adjunct and Visiting Professors:

Campus	Research Centre	Emeritus faculty	Adjunct Faculty	Visiting faculty
Main campus	TIFR	—	40	4
Mumbai	HBCSE	—	—	6
Pune	NCRA	—	—	—
Bengaluru	NCBS	—	8	—
	CAM	—	2	—
	ICTS	1	41	1
Hyderabad	TCIS	1	4	2

## 27. Chairs instituted by the university:

Sir Dorabji Tata Trust donated Rs.75 lakhs during the Golden Jubilee year (1995-1996) of the Institute for the purpose of establishing the following three Endowment Chairs:

- **The Sir Dorabji Tata Chair (started 1999):**

Prof. Michael Bate, FRS, University of Cambridge, UK (1999-2004)

Prof. Azim Surani, FRS, University of Cambridge, UK (2004-2009)

Prof. P. Balaram, Indian Institute of Science, Bangalore (2015-2017)

- **The Shri J. R. D. Tata Chair (started 2000):**

Prof. Madhav Nori, University of Chicago, USA.(2000-2005)

Prof. Girish Agarwal, FRS, Oklahoma State University, USA (2011-2016)

- **The Dr. Homi J. Bhabha Chair (started 2006):**

Prof. John L. Cardy, FRS, Oxford, UK (2006-2009)

Prof. Katepalli R. Sreenivasan, New York University, USA (2011-2016)



28. Students enrolled in the university departments during the current academic year, with the following details:

TIFR is a national institute, and students from all over India enroll in the TIFR Deemed University.

Students	Ph.D.		I- Ph.D.		M.Sc.		Total
	*M	*F	*M	*F	*M	*F	
From the state where the university is located	26	13	8	6	3	3	59
From other states of India	196	89	134	51	20	22	512
NRI students	2	—	—	2	—	1	5
Foreign students	—	2	—	—	—	1	2
<b>Total</b>	<b>224</b>	<b>104</b>	<b>142</b>	<b>57</b>	<b>23</b>	<b>27</b>	<b>578</b>

\*M-Male \*F-Female

The diversity of TIFR students is also apparent from the variety of undergraduate / graduate institutions that they come. This may be seen in the following Table.

	Ph.D.		I-Ph.D.		M.Sc.		Total
	Male	Female	Male	Female	Male	Female	
From Universities	86	60	109	55	17	20	347
From premier science institutions †	26	8	6	—	—	—	40
From premier professional institutions #	94	28	17	—	1	—	140
From others*	11	2	9	10	3	6	41
Foreign Universities	4	2	1	1	1	1	10
<b>Total</b>	<b>221</b>	<b>100</b>	<b>142</b>	<b>67</b>	<b>22</b>	<b>27</b>	<b>578</b>

† Science institutions, e.g. CBS, NISER, CMI, IISER, HBNI, JNCASR, ISI

# Professional Institutions: IITs, NITs, etc.

29. 'Unit cost' of education (*Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled*)

Using the actual expenditure figures of 2014-15:

Campus	Centre / Department	Annual recurring expenditure (Rs. crores)		Number of students
		Including salaries	Excluding salaries	
Main campus	TIFR	205.19	47.78	275
Mumbai	HBCSE	11.98	4.02	15
Pune	NCRA	31.71	13.37	20
Bengaluru	NCBS	58.13	42.33	176
	CAM	@	@	18
	ICTS	@	@	16
Hyderabad	TCIS	@	@	58
<b>Total</b>		307.01	107.50	578
Expenditure per student (lakhs)		53.12	18.60	
Expenditure per student taking 25% expenditure towards education, notionally		13.28	4.65	

@-Included in the Expenses of the Main Campus

# Since TIFR is primarily a research institution, a significant fraction of the annual recurring expenditure goes towards the operation and maintenance of research facilities. However, since the academic program is seamlessly connected with the research at TIFR, all the expenditure is included towards education in the above calculation. If the expenditure towards education and research is notionally divided in the ratio 25:75, the expenditure per student will be Rs. 13.28 lakh per year (including salaries), or Rs. 4.65 lakh per year (excluding salaries).

30. Academic Staff College

Not Applicable.

- 
- Year of establishment .....
  - Number of programmes conducted (with duration)
    - \* UGC Orientation
    - \* UGC Refresher
    - \* University's own programmes
- N.A.
31. Does the university offer Distance Education Programmes (DEP)? No
- If yes, indicate the number of programmes offered. N.A.
- Are they recognized by the Distance Education Council? N.A.
32. Does the university have a provision for external registration of students? No
- If yes, how many students avail of this provision annually? N.A.
33. Is the university applying for Accreditation or Re-Assessment? If Accreditation, name the cycle.
- Accreditation Cycle 1
34. Date of accreditation\* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only)
- Cycle 1: ..... (dd/mm/yyyy), N.A.
- Accreditation outcome/Result ..... N.A.
- \* Kindly enclose copy of accreditation certificate(s) and peer team report(s) N.A.
35. Does the university provide the list of accredited institutions under its jurisdiction on its website? Provide details of the number of accredited affiliated / constituent/ autonomous colleges under the university. N.A.
-

36. Date of establishment of Internal Quality Assurance Cell (IQAC) and dates of submission of Annual Quality Assurance Reports (AQAR).

IQAC established on : 15/02/2016

AQAR report: (i) ..... N.A.

TIFR publishes an Annual Technical Report of its scientific activities throughout the year, which gets tabled in the parliament.

37. Any other relevant data, the university would like to include (not exceeding one page).

- Number of research publications in peer-reviewed journals from TIFR in the last 5 years: 3510
- The contribution of current TIFR faculty members to science has been recognized by as many as 32 Padma awards over the years. The current faculty members have 7 Infosys awards, 8 ICTP awards, 6 TWAS prizes, more than 25 Shanti Swarup Bhatnagar awards, more than 15 Swarnajayanti Fellowships, and more than 15 Birla Science prizes. More than 35 TIFR faculty members are members of national Science Academies, and more than 10 are members of international Science Academies.
- In the Nature Index 2016 ranking of worldwide universities and institutes, which focuses on research publications, TIFR is second in India in all Physical Sciences institutions, with the first position going to all the IITs combined.
- In 2014, TIFR received the “Lokmat National Education Leadership Award”.