



# Goa University

## Annual Quality Assurance Report (AQAR)

(June 2017 to May 2018)



राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद्

विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

*An Autonomous Institution of the University Grants Commission*

P. O. Box. No. 1075, Opp: NLSIU, Nagarbhavi, Bangalore - 560 072 India

## The Annual Quality Assurance Report (AQAR) of the IQAC

### Part – A

#### 1. Details of the Institution

1.1 Name of the Institution:	Goa University
1.2 Address Line 1:	Goa University P.O.
Address Line 2:	Taleigao Plateau
City/Town:	Panaji
State:	Goa
Pin Code:	403 206
Institution e-mail address:	registrar@unigoa.ac.in
Contact Nos.:	+91-8669609005; +91-832-2451097
Name of the Head of the Institution:	Prof. Varun Sahni
Tel. No. with STD Code:	+91-8669609001
Mobile:	8698099225
Name of the IQAC Co-ordinator:	Prof. Pranab Mukhopadhyay
Tel. No. with STD Code:	+91-8669609134
IQAC e-mail address:	iqac@unigoa.ac.in
1.3 NAAC Track ID:	GAUNGN10025
1.4 NAAC Executive Committee No. & Date:	66 <sup>th</sup> Standing Committee meeting held on 24 <sup>th</sup> September 2014
1.5 Website address:	<a href="https://www.unigoa.ac.in/">https://www.unigoa.ac.in/</a>
Web-link of the AQAR:	<a href="https://www.unigoa.ac.in/about-us/a/university-bodies/iqac.html#AQAR">https://www.unigoa.ac.in/about-us/a/university-bodies/iqac.html#AQAR</a>

#### 1.6 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 <sup>st</sup>	Four Star	NA	2001	2001-06
2	2 <sup>nd</sup>	B	2.6	2009	8 Mar 2009 to 7 Mar 2014
3	3 <sup>rd</sup>	A	3.09	2014	24 Sep 2014 to 23 Sep 2019

1.7 Date of Establishment of IQAC (DD/MM/YYYY): 11/07/2009

1.8 AQAR for the year: **AY 2017-18 (1 Jun 2017 to 31 May 2018)**

1.9 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC:

(i) 2012-13 (30/12/2013)	(ii) 2013-14 (19/04/2015)	(iii) 2014-15 (23/10/2015)
(iv) 2015-16 (24/03/2017)	(v) 2016-17 (10/04/2018)	

1.10 Institutional Status

University:	<b>State</b> / Central / Deemed / Private
Regulatory Agency approved Institution: (eg. AICTE, BCI, MCI, PCI, NCI)	Yes <b>No</b>
Type of Institution:	<b>Co-education</b> Men Women
Area	<b>Semi-Urban</b> Rural Tribal
Financial Status	<b>Grant-in-aid/ UGC 2(f) / UGC 12B</b> Grant-in-aid + Self Financing Totally Self-financing

1.11 Type of Faculty/Programme

<b>Arts</b> Y	<b>Science</b> Y	<b>Commerce</b> Y	Law	
PEI (Phys Edu)	TEI (Edu)	Engineering	Health Science	
<b>Management</b> Y	Any other			

1.12 Name of the Affiliating University (for the Colleges) **Not applicable**

1.13 Special status conferred by Central/ State Government-- UGC/CSIR/DST/DBT/ICMR etc

<b>Autonomy by State/Central Govt/University</b> Y		
University with Potential for Excellence	UGC-CPE	
DST Star Scheme	UGC-CE	
<b>UGC-Special Assistance Programme</b> Y	<b>DST-FIST</b>	<b>Y</b>
<b>UGC-Innovative PG programmes</b> Y	Ocean Science Technology Centre (OSTC) of MoES	<b>Y</b>

UGC-COP Programmes		
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## **2. IQAC Composition and Activities**

2.1 No. of Teachers	8
2.2 No. of Administrative/Technical staff	3
2.3 No. of students	1
2.4 No. of Management representatives	1
2.5 No. of Alumni	1
2.6 No. of any other stakeholder and community representatives	1
2.7 No. of Employers/ Industrialists	1
2.8 No. of other External Experts	1
2.9 Total No. of members	17

2.10 No. of IQAC meetings held in 2017-18: Three (2 Aug 2017, 2 Nov 2017, 6 Feb 2018)

2.11 No. of meetings with various stakeholders (informal/formal):

Faculty	10
Non-Teaching Staff	4
Students	1
Alumni	1
Others	3
Total	19

2.12 Has IQAC received any funding from UGC during the year? Yes No

If yes, mention the amount NA

2.13 Seminars and Conferences (only quality related)

(i) No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC

International	
National	1
State	
Institution Level	
Total	1

(ii) Themes: Quality Enhancement in Higher Education (9-10 March 2018)

#### 2.14 Significant Activities and contributions made by IQAC

- Overhauling and content development (day to day basis) of the GU website
- Updation of staff, student, publications, conference presentations, projects and events databases
- Participation in various National Ranking Surveys ((i) NIRF, (ii) India Today, (iii) The Week)
- Inputs to the Institutions of Excellence (IoE) application and Rashtriya Uchhatar Shiksha Abhiyan (2.0) (RUSA 2 .0)
- Compilation of University annual report, AQAR Report from PBAS datasets submitted by the faculty members and departmental information
- Presentations/lectures on quality enhancement in HEIs at Orientation programmes, refresher courses, administrative staff training programme, Other organisations having interest, etc.
- Publications:
  - Mukhopadhyay, P.; Tapaswi, M.P.; Sudarsan, P.K. Key queries. *The Telegraph*. 17 Apr 2018. <https://www.telegraphindia.com/opinion/key-queries-221205>
  - Mukhopadhyay, P.; Tapaswi, M.P.; Sudarsan, P.K.; Sudarsan, K. Assessing quality in higher education institutions in India: An alternate framework. *Current Science*. 114(6); 2018; 1167-1173. <http://irgu.unigoa.ac.in/drs/handle/unigoa/5159>
  - Mukhopadhyay, P.; Tapaswi, M.P.; Sudarsan, P.K. The 'search' for eminence. *The Telegraph*. 5 Dec 2017. <https://www.telegraphindia.com/opinion/the-search-for-eminence-189793>
  - Mukhopadhyay, P. Why India's University ranking system is flawed. *Hindustan Times*, 4 Jul 2017. <https://www.hindustantimes.com/opinion/why-govt-s-university-ranking-system-needs-urgent-review/story-7o60o5uoIKPugG83t9D2yl.html>
  - Tapaswi, M.P. उच्चशिक्षणाचा खेळखंडोबा. [Mess in Higher Education: Critique on the UGC Journals List]. *Loksatta Daily (Express Group)*. In Marathi. 15 June 2017. <https://www.loksatta.com/vishesh-news/university-grants-commission-marathi-articles-marathi-language-indian-philosophy-1492992/>
  - Mukhopadhyay, P.; Tapaswi, M.P.; Sudarsan, P.K. Government's Ranking Framework for Higher Education Is Biased Towards Larger Institutions. *The Wire*. 25 May 2017. <https://thewire.in/139651/nirf-framework-biased-favour-large-heis/>

#### 2.15 Plan of Action by IQAC/Outcome

The plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and the outcome achieved by the end of the year\*

Plan of Action	Achievements
Institutional repository updation	Newly published information has been added to the repository. The addition of theses has been streamlined during the year
Updation of databases	Staff, student (PG and PhD), conference presentations, projects and events databases are made available on the University website
Conduct awareness programmes related to quality enhancement in HEIs	Presentations/lectures on quality enhancement in HEIs at Orientation programmes, refresher courses, administrative staff training programme, Other organisations having interest, etc.
Have a coordinated time table across the campus to facilitate the functioning of CBCS system	The time-table for various programmes has now been added to every departmental page on website. There is also an agreement across departments that elective courses would be scheduled in the afternoon so that students can take courses across departments
Organization of National Event	National Workshop on Quality Enhancement in Higher Education (9-10 March 2018)

\* Attach the Academic Calendar of the year as Annexure 2.15 (Attached)

Whether the AQAR was placed in statutory body: Yes No

Management Syndicate **Any other body**

Provide the details of the action taken:

- Goa University has accorded Statutory status to IQAC and is chaired by the Vice Chancellor. The IQAC Committee approves the AQAR before it is uploaded to the GU website and submitted to NAAC and other bodies.

Part – B

**Criterion – I**

**1. Curricular Aspects**

1.1 Details about Academic Programmes

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added / Career Oriented programmes
PhD	25	0	0	0
PG	36	0	2	36
UG	1	0	0	
PG Diploma	2			
Advanced Diploma				
Diploma				
Certificate	2			
Others (MPhil)	21			
<b>Total</b>	<b>87</b>		<b>02</b>	<b>36</b>
Interdisciplinary				
Innovative				

1.2 (i) Flexibility of the Curriculum: CBCS/Core/Elective option / Open options

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	35
Trimester	1
Annual	0

1.3 Feedback from stakeholders

Alumni	Y	Parents	Y
Employers	Y	Students	Y

Mode of feedback: **Online and Manual\*** Co-operating schools (for PEI)

*\*IQAC has set up a mechanism to collect online student feedback on each course conducted in the university. Students, Parents, employers, community stake-holders and alumni are encouraged to give feedback directly to the concerned official including the Vice Chancellor either by e-mail or in person. The new version of the website also provides an option to 'get-in-touch' on specific issues of interest (<https://www.uniqoa.ac.in/goa-university-contact-us.php>).*

1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects

The syllabi across all departments get routinely updated either in terms of content or in structure. These are far too many to list here but can be gleaned from AC minutes and updates in Ordinances and Statutes.

1.5 Any new Department/Centre introduced during the year.

New proposals are awaiting Governmental approvals.

If yes, give details: *Not applicable*

**Criterion – II**

**2. Teaching, Learning and Evaluation**

2.1 Total No. of permanent faculty:

	Total	Asst. Professors	Associate Professors	Professors	Others
Sanctioned	193	98	64	31	0
Direct Appointment	115	73	18+13*	4+7*	0
CAS	78	10	17	51	0

*\*7 posts of Professors and 13 posts of Associate Professors filled at the level of Assistant Professor*

2.2 No. of permanent faculty with Ph.D.: 92

2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year:

Asst. Professors		Associate Professors		Professors		Others		Total	
R	V	R	V	R	V	R	V	R	V
3	25	9	33	6	18	-	-	18	70

2.4 No. of Guest and Visiting faculty and Temporary faculty

Guest	Visiting (VRPP)	Temporary
	24	60

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended Seminars/ Workshops*	3	17	7



Presented papers	30	100	9
Resource Persons	4	22	2

\* Does not include those who presented papers/ acted as resource persons

## 2.6 Innovative processes adopted by the institution in Teaching and Learning:

### Innovative tools:

- Slides presentation
- Screenings of films, documentaries and music
- Use of games, online learning platforms
- Introduction to online databases
- Use of Chat apps for interaction, software

### Innovative techniques:

- Apprenticeship
- Assignments
- Blog development
- Book exhibition
- Case studies
- Celebrations of special days
- Discussions
- Field work, problem based learning
- Flipped classroom pedagogy
- Group discussions
- Hands on experience
- Interviews
- Lectures of visiting scholars
- Projects
- Quiz

- Remedial teaching
- Seminars
- Student exchange programmes
- Tutorials
- Workshop presentations

2.7 Total No. of actual teaching days during this academic year : **180**

2.8 Examination/ Evaluation Reforms initiated by the Institution (for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Questions)

- On line tests/tutorials
- Continuous evaluation process, based on class participation, interaction, and sense of initiative at learning
- Dissertations/ projects
- Reading and discussion of answer papers in the class room

2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop

Activity	No. of faculty members
Curriculum restructuring	75
Revision	34
Syllabus development	24

2.10 Average percentage of attendance of students: **85%**

## 2.11 Course/Programme wise distribution of pass percentage:

Course	Grade O		Grade A+		Grade A		Grade B+		Grade B		Grade C		Grade P		F (Fail)		Total Students	
	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	
Applied Geology	0	0	0	0	3	14.29	4	19.05	14	66.67	0	0	0	0	0	0	0	21
Biochemistry	0	0	1	5	5	25	7	35	3	15	0	0	0	0	4	20		20
Biotechnology	0	0	0	0	0	0	9	45	3	15	2	10	0	0	6	30		20
Botany	0	0	1	5.26	2	10.53	10	52.63	2	10.53	0	0	0	0	4	21.05		19
Master of Business Administration		0	0	0	2	3.17	10	15.87	32	50.79	13	20.63	0	0	6	9.52		63
Master of Business Administration (FS)	0	0	1	1.69	9	15.25	14	23.73	27	45.76	6	10.17	1	1.69	1	1.69		59
Integrated MBA	0	0	0	0	0	0	0	0	16	100	0	0	0	0	0	0		16
Integrated MBA (exit option – BBA)	0	0	0	0	0	0	0	0	27	100	0	0	0	0	0	0		27
Chemistry	0	0	1	1.28	8	10.26	29	37.18	30	38.46	3	3.85	0	0	7	8.97		78
Economics	0	0	0	0	1	2.94	10	29.41	3	8.82	5	14.71	2	5.88	13	38.24		34
Electronics	0	0	0	0	2	20	8	80	0	0	0	0	0	0	0	0		10
English	0	0	0	0	4	8.89	17	37.78	15	33.33	2	4.44	0	0	7	15.56		45
French	0	0	2	50	2	50	0	0	0	0	0	0	0	0	0	0		4
Hindi	0	0	0	0	1	3.33	6	20	15	50	7	23.33	1	3.33	0	0		30
History	0	0	0	0	1	2.7	14	37.84	12	32.43	4	10.81		0	6	16.22		37
International Studies	0	0	0	0	0	0	2	40	0	0	1	20	0	0	2	40		5
Konkani	0	0	0	0	1	2.86	3	8.57	16	45.71	14	40	0	0	1	2.86		35
M.Com	0	0	2	3.23	19	30.65	31	50	8	12.9		0	0	0	2	3.23		62
Marathi	0	0	0	0	3	15.79	7	36.84	6	31.58	2	10.53	0	0	1	5.26		19
Marine Biotechnology	0	0	0	0	4	36.36	4	36.36	1	9.09	1	9.09	0	0	1	9.09		11
Marine Microbiology	0	0	1	5.26	1	5.26	6	31.58	7	36.84	2	10.53	0	0	2	10.53		19
Marine Science	0	0	5	38.46	3	23.08	1	7.69	0	0	0	0	0	0	4	30.77		13
Mathematics	0	0	0	0	1	4.17	2	8.33	6	25	1	4.17	0	0	14	58.33		24
Microbiology	0	0	4	22.22	10	55.56	3	16.67	1	5.56	0	0	0	0	0	0		18
Philosophy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	100		1
Physics	0	0	1	2.7	1	2.7	5	13.51	6	16.22	2	5.41	0	0	22	59.46		37

Political Science	0	0	0	0	1	3.23	13	41.94	15	48.39	2	6.45	0	0	0	0	31
Portuguese	0	0	1	16.67	1	16.67	2	33.33	1	16.67	0	0	0	0	1	16.67	6
Sociology	0	0	1	6.25	0	0	3	18.75	3	18.75	5	31.25	1	6.25	3	18.75	16
Women's Studies	0	0	0	0	4	66.67	2	33.33	0	0	0	0	0	0	0	0	6
Zoology	0	0	0	0	7	26.92	14	53.85	4	15.38	1	3.85	0	0	0	0	26
	Distinction		First Class		Second Class		Pass Class		Fails								Total students
	No	%	No	%	No	%	No	%	No	%							No
BLISc	4	16	15	60	6	24	0		0								25
MLISc	13	59.1	9	40.9	0		0		0								22
MCA	3	6	13	26	20	40	0		14	28							50

## 2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes:

<ul style="list-style-type: none"> <li>• Nodal Centre for information gathering and dissemination to provide support to the university in regularly updating information, compiling reports, participating in surveys and responding to questionnaires and routine RTI queries on academic matters</li> <li>• Alert management on the state-of-the-art from the information so gathered</li> <li>• Pioneered an online student feedback system</li> <li>• Monitor website updates, time-tables, etc</li> </ul>
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## 2.13 Initiatives undertaken towards faculty development

HRDC PROGRAMMES	Number of programmes	Number of faculty benefited	No. of faculty (participants) from Goa University Departments
Refresher courses	1	131	6
UGC – Faculty Improvement Programme	0	0	0
Orientation programmes	4	146	5
Faculty exchange programme	0	0	0
Staff training conducted by the university	1	11	11
Staff training conducted by other institutions	0	0	0
Summer / Winter schools, Workshops, etc.	0	0	0
Others Short Term Courses	1	39	0
Any other courses (Principals Meet)	1	21	

## 2.14 Details of Administrative and Technical staff

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff	271	46	0	0
Technical Staff	87	46	0	0

### Criterion – III

#### 3. Research, Consultancy and Extension

##### 3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution

<ul style="list-style-type: none"><li>• Maintains and updates the publications repository of faculty publications and other databases (PhD students, Conference presentations, Research projects, etc) routinely</li><li>• Repository and other databases made available on Internet for increased visibility of work done</li><li>• Sensitize researchers on the quality journals in which they should publish by making presentations at various forums</li><li>• Introduced 'Research Incentives Fund' to encourage authors to publish in Scopus/Wok monitored journals</li></ul>
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##### 3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	12	20	8	23
Outlay in Rs. Lakhs	Please see the lists below			

## Completed projects (2017-18)

Dept	PI	Title	Funding Agency	Sanctioned amount (Rs. In lakhs)	Duration
Botany	Janarthanam, M.K.; Krishnan, S. (Co-PI)	Preventing Extinction and Improving Conservation Status of Threatened Plants Through Application of Biotechnological Tools	DBT	35.71	Mar 2012-Jun 2017
Physics	Pahari, B.	Advanced Solid state NMR on transparent conducting oxides	UGC-start Up Grants	6	Jul 2015-Jul 2017
Microbiology	D'Costa, P.M.	Fate of Diatoms During Microbially-mediated Decomposition Processes	SERB-DST	6.5	Aug 2014-Aug 2017
Marine Sciences	Rivonker, C.U.; Kerkar, V. (Co-PI)	Harmful Algal Blooms (HABs): Hab Monitoring (Mangalore toGoa)	MoES	57	Oct 2012-Aug 2017
Management Studies	Borde, N.A.; Dayanand, M.S. (Co-PI)	Socio Economic Mapping of Villages Affected by Mopa Airport	GMR Goa International Air	5.3	Jan 2017-Aug 2017
Chemistry	Nadkarni, V.S.	Development of Novel Polymeric Detectors for Selective Dosimetric Analysis	AERB	25.19	Oct 2013-Sep 2017
Marine Sciences	Menon, H.B.	Optical Characterization of Case II: Waters and Retrieval of Colour Components from an Optical Sensor	INCOIS	61.23	Apr 2013-Sep 2017
Marine Sciences	Rivonker, C.U.	Ballast Water Management Programme- India (BAMPI)	NIO	106.41	Sep 2011-Sep 2017
Marine Sciences	Nayak, G.N.	Estimation of Beryllium from the Polar Regions and Lake Sediments: Paleo-Oceanographic Implications	AUC-UGC	6.03	Jan 2014-Nov 2017
Microbiology	Naik, M.M.	Studies on Involvement of Quorum Sensing Molecules in Development of Biofilm and Expression of Virulence Genes in <i>Listeria monocytogenes</i> and <i>Staphylococcus aureus</i> Isolated from Dairy Industry	SERB-DST	11.5	Dec 2015-Nov 2017
Physics	Desa, J.A.E.	Temperature Dependent Studies of Some Glass Structures and Structures of Some Superparamagnetic Glasses	UGC-DAE	1.25	Jan 2015-Dec 2017
Marine Sciences	Rivonker, C.U.	Assessment of Marine Biodiversity Along the Goa and Northern Karnataka Coasts	MoES	62.9	Feb 2013-Feb 2018
Microbiology	Haldar, S.	Application of Metagenomic Technique for Isolation of Microbes from Mangroves for Potential use in Biofertilization and Bioremediation	SERB-DST N-PDF	2	Mar 2016-Mar 2018
Chemistry	Morajkar, P.P.	Synthesis Characterization and Photocatalytic Application of Nanocomposites	UGC	6	Mar 2015-Mar 2018

Chemistry	Majik, M.S.	Development of Analytical Methods and their Application in Biomolecular and Environmental Research	UGC		6	Apr 2015-Mar 2018
Earth Science	Chachadi, A.G.	Groundwater Resources				
Earth Science	Mahender, K.	Mineral Resources Conservation & GIS Data Base	UGC-SAP DRS-III level pro		74	Apr 2013-Mar 2018
Earth Science	Viegas, A.	Mining and Minerals of Goa				
Earth Science	Vishwanath, T.A.	Igneous and Metamorphic Petrology				
Electronics	Gad, R.S.; Naik, G.M. (Co-PI)	Development of Coconut Plucking Robot	ICAR		25.22	Feb 2015-Mar 2018
Biotechnology	Muraleedharan, U.D.; Matta, V.M. (Co-PI)	Biogeochemical Studies of the Arabian Sea and the Effect of Riverine Inputs from the Mandovi-Zuari System along the West Coast of India	MoES		64	Sep 2011-Mar 2018
Marine Sciences	Nayak, G.N.	High Resolution Paleoclimatic Studies from the Bay of Bengal	MES		12.78	Mar 2012-Mar 2018
Physics	Priolkar, K.R.	Effect of Structural Disorder on Martensitic Transformation in Shape Memory Alloys	DST		59.02	Apr 2015-Mar 2018
Management Studies	Borde, N.A.; Dayanand, M.S. (Co-PI)	Drafting of Feni Policy (consultancy) (Other Co-PIs include: Hegde-Desai, P., D'Souza, E., D'Souza, K.)	Govt. of Goa		25	Mar 2017-May 2018

### Ongoing projects (2017-18)

Dept	PI	Title	Funding Agency	Sanctioned amount (Rs. In lakhs)	Duration
Chemistry	Srinivasan, B.R.	Hydrothermal Synthesis, Characterization and Properties of New S-block Metal-Organic Frameworks	UGC	9.92	Jul 2015 – Jun 2018
Management Studies	Hegde-Desai, P.; Borde, N.A. (Co-PI)	Financing of Micro, Small and Medium Enterprises (MSMEs) in Goa (With reference to specified sectors)	UGC	6.37	Jul 2015 – Jun 2018
Physics	Pai, R.V.	Quantum Phases of Spin-1 Bosonic Atoms in Bichromatic Superlattices	UGC	14.39	Jul 2015 – Jun 2018
Management Studies	Nirmala, R.; Mekoth, N. (Co-PI)	Impact Assessment Study under the Deendayal Antyodaya Yojana - National Urban Livelihoods Mission	GSUDA	0.83	Sep 2017 – Aug 2018
Chemistry	Santosh, G.	Self Assembly of Amphiphilic Donor Acceptor Dyads in to Nanostructures for Applications in Optoelectronics	DST	35.00	Aug 2013 – Sep 2018

Physics	Raut-Desai, R.; Desa, J.A.E. (Co-PI)	Mesoscopic Structural Investigation on Magnetic Porous Materials by SANS	UGC-DAE	1.35	Jan 2016 – Dec 2018
Chemistry	Majik, M.S.	Development of Nucleosides and Marine Natural Products-Based Therapeutics and Their Synthetic Studies	DST	24.00	Feb 2016 – Feb 2019
Women's Studies	Desouza, S.	State Resource Centre for Women	Min. of Women and Child D	40.00	Feb 2018 – Feb 2019
Electronics	Naik, G.M.	Visweswarayya Research grant for Electronics &IT	DeitY	33.00	Mar 2016 – Feb 2019
Electronics	Parab, J.S.	Visweswarayya Research grant for Electronics & IT	DeitY	33.00	Mar 2016 – Feb 2019
Chemistry	Morajkar, P.P.	Effect of Reservoir Rock Composition on Oxidation of Hydrocarbons	DST	48.40	Mar 2016 – Mar 2019
Botany	Rodrigues, B.F.	Retrieval of Biophysical Parameters in Part of Western Ghats using GISAT	SAC-ISRO	15.41	Apr 2017 – Mar 2019
Zoology	Roy, R.; Kerkar, S. (Co-PI)	Development of Alternative Sustainable Fish Feeds to Promote Human Health using Novel Non-conventional Indigenous Ingredients	DBT(India); BBSRC(UK)	111.00	Apr 2016 – Mar 2019
Sociology	Coelho, J.P.	Deterritorialization, Nationalism, and Cultural Homogenisation: A Study of Insinuations and the Public Sphere Among the Tibetans in Exile	ICSSR	8.25	Apr 2017 – Apr 2019
Zoology	Shyama, S.K.	Genetic Stock Structure of Shevto Grey Mullet (Mugil cephalus) across Estuarine and Brackish Water of Goa and Development of Molecular Marker for Quick Identification of Different Stocks	DSTE, Govt. of Goa	3.00	Apr 2018 – Apr 2019
Chemistry	Tilve, S.G.	Intramolecular Dehydrogenative Coupling (IMDC) Reactions for the Synthesis of Heterocyclic Scaffolds	DST-SERB	42.11	Jun 2016- May 2019
Chemistry	Tilve, S.G.	Green Chemistry Approach for the Synthesis of Bioactive Heterocycles	UGC	9.33	Jun 2016- May 2019
Physics	Priolkar, K.R.	Effect of Site Occupancy Disorder on Martensitic Transformation in Mn Rich Magnetic Shape Memory Alloys	CSIR, New Delhi	10.90	Jun 2016- May 2019
Chemistry	Tilve, S.G.	Diastereo and Enantioselective Synthesis of Alkaloids Containing Pyrrolidine and Piperidine Motif	CSIR	24.86	Jul 2016 – Jun 2019
Electronics	Gad, R.S.	Vishveshvaraya PhD Scheme in area of ESDM for two full-time candidates	DeitY	63.88	Sep 2014 – Aug 2019
Physics	Pahari, B.	Solid state NMR and computational study to probe the structural, defects and ion conduction mechanistic features in anti-perovskite based electrolyte materials	DST-SERB	29.00	Dec 2016 – Dec 2019



Physics	Sudhir, C.	Optical Manipulation and Trapping Single Gold Shell Encapsulated Semiconductor Quantum Dots and Applications Towards Bioimaging	SERB-DST	49.50	Jan 2017 – Jan 2020
Botany	Sharma, P.K.	Biodiversity, Eco-physiology and Biotechnology UGC-SAP (DRS III)	UGC-SAP	118.00	Apr 2015 – Mar 2020
Marine Sciences	Menon, H.B.	Establishing A Network Station at Goa University for Atmospheric Boundary Layer Measurements Under The Noble Project of ISRO-GBP-SPL, VSSC, ISRO	ISRO	86.65	Apr 2013 – Mar 2017
Marine Sciences	Menon, H.B.	Aerosol Radiative Forcing over India	VSSC, ISRO, Trivandrum	50.00	Apr 2012 – Mar 2017
Botany	Rodrigues, B.F.	Screening for Efficient Microbial Consortium for Yield Improvement in Vigna unguiculata (L.) Walp.	DSTE, Govt. of Goa	11.15	Jun 2017 – Jun 2020
Botany	Krishnan, S.	Dye Yielding Plants of Goa and Their Potential Use in Biological and Textile Staining	DSTE, Govt. of Goa	7.50	Aug 2017 – Aug 2020
Electronics	Gad, R.S.	Vishveshvaraya PhD Scheme in area of ESDM & ITES for five full-time candidates	DeitY	203.00	Sep 2015 – Aug 2020
Chemistry	Morajkar, P.P.	Towards higher efficiency and lower emissions using Indian-origin biofuels: Developing a predictive CFD model with well validated reduced combustion kinetic for device scale applications	DST	53.98	Dec 2017 – Dec 2020
Electronics	Parab, J.S.	Viswesaraya Young Faculty Award Electronics &IT	DeitY	37.00	Apr 2016 – Mar 2021
Botany	Krishnan, S.	Histochemical and Biotechnological Characterization of High Value Medicinal Plants Annona muricata and Rauvolfia verticillata from the Western Ghats of India	CSIR	24.96	Jun 2018 – Jun 2021

#### Sanctioned projects (2017-18)

Dept	PI	Title	Funding Agency	Sanctioned amount (Rs. In lakhs)	Duration
Botany	Krishnan, S.	Histochemical and Biotechnological Characterization of High Value Medicinal Plants Annona muricata and Rauvolfia verticillata from the Western Ghats of India	CSIR	24.96	Jun 2018 – Jun 2021
Botany	Krishnan, S.	Dye Yielding Plants of Goa and Their Potential Use in Biological and Textile Staining	DSTE, Govt. of Goa	7.50	Aug 2017 – Aug 2020
Botany	Rodrigues, B.F.	Screening for Efficient Microbial Consortium for Yield Improvement in Vigna unguiculata (L.) Walp.	DSTE, Govt. of Goa	11.15	Jun 2017 – Jun 2020
Chemistry	Morajkar, P.P.	Towards higher efficiency and lower emissions using Indian-origin biofuels: Developing a	DST	53.98	Dec 2017 – Dec 2020

		predictive CFD model with well validated reduced combustion kinetic for device scale applications			
Chemistry	Dhuri, S.N.	Design of New Transitional Metal Catalyst for Biomimetic Organic Oxidations	CSIR	9.27	May 2018 – Mar 2021
Economics	Mukhopadhyay, P.	Outcome Evaluation of State Finances in the Context Recommendations of the 14th Finance Commission: Determination of a Sustainable Road-map for 2020-25 Taking into Account Impact of Introduction of GST and Other Tax/Non-tax Trend Forecasts	Finance Commission of India	4.5	May-Nov 2018
Management Studies	Nirmala, R.; Mekoth, N. (Co-PI)	Impact Assessment Study under the Deendayal Antyodaya Yojana - National Urban Livelihoods Mission	GSUDA	0.83	Sep 2017 – Aug 2018
Physics	Pahari, B.	To Rationalize the Composition-Structure-Property Relationship in Na <sub>3</sub> +xSC <sub>2</sub> (SiO <sub>4</sub> ) <sub>X</sub> PO <sub>4</sub> ) <sub>3-X</sub> : New Promising NASICON Materials for Sodium-Ion Batteries	UGC-DAE-CSR	12.58	Jan 2018 – Dec 2021
Physics	Priolkar, K.R.	Understanding Dynamics of Magneto Structural Coupling in Manganese Inter-Metallics Exhibiting First Order Transition	SERB-DST	41.16	Mar 2018 - Mar 2021
Women's Studies	Desouza, S.	State Resource Centre for Women	Min. of Women and Child D	40.00	Feb 2018 – Feb 2019
Zoology	Shyama, S.K.	Genetic Stock Structure of Shevto Grey Mullet (Mugil cephalus) across Estuarine and Brackish Water of Goa and Development of Molecular Marker for Quick Identification of Different Stocks	DSTE, Govt. of Goa	3.00	Apr 2018 – Apr 2019

### Proposed projects (2017-18)

Dept	Principal Investigator	Title	Funding Agency	Proposed amount in (Rs.)
Botany	Konge Randive Pallavi P.	Systematic Studies on lichens of Cotigao wildlife Sanctuary, Goa	DST	16.89
Botany	Krishnanan S.	Taxonomic Characterization, Phytochemical profiling and Molecular phylogenetics studies of Genus Garcinia of India	SERB	61.59
Botany	Rodrigues B.F.	Screening for efficient microbial Consortium for yield Improvement in Vigna unguiculata (L.) walp	DST & E	11.15
Botany	Rodrigues B.F.	Retrieval of Biophysical Parameters in part of western Ghats using GSAT	SPC-ISRO	15.41
Chemistry	Morajkar, P.	Geological storage of Co <sub>2</sub> : Experimental and kinetic model lines assisted investigation of reactivity of hydrocarbons with reservoir rock surface and water in the context of CO <sub>2</sub> /O <sub>2</sub> mixture injection in depleted oil reservoirs-evaluation of auto-ignition phenomenon and risk of reservoir instability	CEFIPRA	84.00 (Euros 100,000/-)

Chemistry	Morajkar, P.	Turmins the redox properties of high valent ruthenium-oxygen compounds in the presence of redox-RuIV(TMC) in active metal ions and characterization	SERB-DST	32.54
Chemistry	Morajkar, P.	Geological storage of Co <sub>2</sub> : Experimental and kinetic modellines assisted investigation of reactivity of hydrocarbons with reservoir rock surface and water in the context of CO <sub>2</sub> /O <sub>2</sub> mixture injection in depleted oil reservoirs-evaluation of auto-ignition phenomenon and risk of reservoir instability	MOES-INDIA	79.15
Chemistry	Bhosale, S.V.	Development of Functional Yoctowell Tools for Biological Applications	BRNS	99.27
Chemistry	Bhosale, S.V.	Creating Chiral Supramolecular Smart Material from Small Photoluminescent Organic Molecules	SERB	97.88
Chemistry	Bhosale, S.V.	AIE-active Functional Aminoglycoside Antibiotics: Design, Synthesis, Self-assembly, Molecular Recognition and Biological Applications	CSIR	31.36
Chemistry	Bhosale, S.V.	Exploring the Aspects of Supramolecular Chemistry using Photoluminescent Organic Molecules: Design, Synthesis and Applications	DSTE, GOA	20.01
Economics	Mukhopadhyay, P.	Outcome Evaluation of State Finances in the Context recommendations of the 14th Finance Commission: Determination of a Sustainable road map for 2020-25 taking into account impact of Introduction of GST and other tax/non-tax trend forecasts	15th Finance Commission	4.50
Electronics	Gad, R.S.	Development of Coconut and Arecanut Harvesting Robot	DHE-Govt. of Goa	87.34
History	Rao, N.	A study of the programme source Relevant to the history of Karnataka and Goa	ICHPR	4.92
Marine Sciences	Nayak, G.N.	Beryllium Concentration, Clay Minerals and metals in sediments in reconstruction of paleo-climates	IUAC, Govt. of India	6.03
Marine Sciences	Nayak, G.N.	Biodiversity of metals in Zuari estuarine sediments and their bioaccumulation in edible benthic biota, West Coast of India	GSBBG	7.14
Marine Sciences	Menon, H.B.	Dynamics of Interfacial Halocline in an estuarine ecosystem to understand the spacio-temporal variability of flux and associated colour components of a monsoonal estuary: Analysis through coupled hyarodynamics and bio-optics approach for a blue economy	ISRO	92.91
Marine Sciences	Nayak, G.N.	Factors Regulating Sedimentological and Geochemical Processes in Modern Estuarine Mudflat and Mangrove Environments, Central West Coast of India	UGC-BSR	33.00
Philosophy	Tharakan, K.	Furthering International Relations Capacities and Intercultural Engagement to Nurture Campus Diversity and to support Internationalization at Home (Friends)	European Union	26.00 (Euros 31,000/-)
Physics	Priolkar K.R.	Understanding dynamics of magnato-structural coupling in manganese Inter-metallics exhibiting first order transition	SERB	45.43

Physics	Rajesh Kumar, S.H.	Controlling facets of TiO <sub>2</sub> nanostructures for energy efficient photo catalysis applications	UGC-DAE-CSR	14.23
Physics	Hyam, R.S.	Controlling Facts of TiO <sub>2</sub> and other metal oxide Nanostructures for higher efficiency Photocatalysis and energy Applications	DST	50.00
Physics	Pahari, B.	To rationalize the Composition-structure-property relationship in Na <sub>3+x</sub> SC <sub>2</sub> (SiO <sub>4</sub> ) <sub>X</sub> (Po <sub>4</sub> ) <sub>3-X</sub> : new promising NASICON materials for sodium-ion batteries	UGC-DAE-CSR	12.58
Physics	Sudhir, C.	Reduced Graphene oxide-Gold Nanoparticle Composite based surface Enhanced Raman Spectroscopy for Sensing Environmental Pollutants	UGC-DAE-CSR	12.58
Zoology	Shyama, S.K.	Genetic Stock Structure of Shevto - Grey Mullet (Mugil cephalus) a Cross estuarine and brackish water of Goa and Development of Molecular marker for quick Identification of different stocks	DST	3.00

### 3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	0	0	0	0
Outlay in Rs. Lakhs				

### 3.4 Details on research publications

	International	National	Total
Peer Review Journals	No criteria to distinguish between International and national Journals		241
Non-Peer Review Journals	0	0	0
e-Journals	Part of Peer-review journals		
Conference proceedings	22	6	28

### 3.5 Details on Impact factor of publications:

Range	0.289 to 14.357
Average	2.388
h-index	9*
Nos. in SCOPUS	126

\*As in Web of Science for the years 2017-18 (searched on 30 Aug 2018)

### 3.6 Research funds sanctioned and received from various funding agencies, industry and other organisations

Name of Faculty (Principal Investigator)	Funding agency	Title of the Project	Amount Received (In Rupees)	GU Budget head
<b>Research Project funding</b>				
Priolkar, K.R.	CSIR	Preparation and Characterization of Gallium Free Ferromagnetic Shape Memory Alloys	31468.00	A - 1(26)
Kerkar, V.	MoES	An Assessment of Occurrence of Algal Blooms Along the Coast of Goa and Gujarat and its Ecological Implications	247657.00	A - 2(20)
Nayak, G.N.	MoES	High Resolution Paleoclimatic Studies from the Bay of Bengal	5994.00	A - 2(27)
Majik, M.S.	DST	Development of Nucleosides and Marine Natural Products-Based Therapeutics and Their Synthetic Studies	550000.00	A-3(85)
Morajkar, P.P.	DST	Effect of Reservoir Rock Composition on Oxidation of Hydrocarbons	803243.00	A-3(89)
Shyama, S.K.	DAE	Evaluation of the Genotoxic Effect of Ionizing Radiation in Somatic Germinal Cells of Fishes	219437.00	A - 13(8)
Priolkar, K.R.	DAE	Study of Magneto-Elastic Coupling in Antiperovskite Materials	4757.00	A - 13(10)
Dubey, S.K.	DBT	Biochemical Characterization of Tributyltin Chloride (TBTC) Resistant Bacteria from Marine Environment of Goa, India and Isolation of Genes Encoding Enzyme(s) for TBTC Resistance (Degradation)	15687.00	A - 17(9)
Janarthanam, M.K.	DBT	Preventing Extinction and Improving Conservation Status of Threatened Plants Through Application of Biotechnological Tools	46700.00	A - 17(14)
Roy, R.	DBT(India); BBSRC(UK)	Development of Alternative Sustainable Fish Feeds to Promote Human Health using Novel Non-conventional Indigenous Ingredients	2131336.00	A - 17(17)
Menon, H.B.	DoSpace	Quantitative analysis.....	18643.00	A-38(2)
Menon, H.B.	DoSpace	Aerosol Radiative Forcing over India	1000000.00	A - 38(6)
Coelho, J.P.	ICSSR	Constructing Nation in The Diaspora: Political Sociological Study of the Tibetan Refugees in Bylakuppr Settlements South India	10000.00	A - 49(2)
Kerkar, S.	DSTE, Goa	Impact of Tourism on Estuarine Water Quality and Effect on Mangrove and Saltpan Ecosystem of Goa	566800.00	B - 20
Rodrigues, B.F.	Forest Dept, Goa Govt.	Monitoring and Evaluation of Plantations under CAMPA in the State of Goa	263000.00	B - 26
Dayanand, M.S.	GMR Goa International Airport	Socio Economic Mapping of Villages Affected by Mopa Airport	238050.00	C - 16(48)
Priolkar, K.R.	IFCPAR	Mechanisms of New Long-Lasting Luminescence Biomarkers	11096.00	C - 36
Naik, G.M.	UGC	Design of Hyperspectral Smart Sensor Using Soft-Core Processors and IP Cores	131422.00	D - 58

Salker, A.V.	UGC	Nano Structured Based Catalysts for Detoxification of Exhaust	3559.00	D - 69
Nayak, G.N.	UGC	Understanding Depositional Environments, Metal Concentrations and Processes Through the Study of Mudflats Within Mandovi-Zuari Estuarine System, Goa	74.00	D - 65
Desa, J.A.E.	UGC-DAE	Temperature Dependent Studies of Some Glass Structures and Structures of Some Superparamagnetic Glasses	45000.00	D - 79
Tilve, S.G.	UGC	Green Chemistry Approach for the Synthesis of Bioactive Heterocycles	177886.00	D - 85
Hegde-Desai, P.	UGC	Financing of Micro, Small and Medium Enterprises (MSMEs) in Goa (With reference to specified sectors)	198400.00	D - 87
Pai, R.V.	UGC	Quantum Phases of Spin-1 Bosonic Atoms in Bichromatic Superlattices	188884.00	D - 88
		<b>Total</b>	<b>6909093.00</b>	
<b>Infra strengthening</b>				
Bhosle, S.	MoES	OSTC on Marine Microbiology, Goa University	350212.00	A - 2(6)
Bhosle, S.	MoES	Upgradation of the OASTC, Goa University in to a Centre of Excellence in Marine Microbiology	290661.00	A-2(17)
	DST	Assistance for FIST programme under Dept. of Zoology	191046.00	A – 3(43)
	DAE	National Board of Higher Mathematics - Library books & Journals	894.00	A - 13(2)
Sudarsan, P.K.	MoHA	Setting up of workstation for research on sample microdata of census at Goa University	22492.00	A - 54(1)
	UGC	University Science Instrumentation Centre	724649.00	D - 14
	UGC	Financial Assistance for setting up Central Computing facility	206990.00	D - 22
	UGC	Grants for Computer Laboratory facilities for MCA course in the Department of Computer Science & Technology	200000.00	D - 34
	UGC	Special Assistance Programme (SAP) ... Dept. of Zoology	288437.00	D - 38(9)
	UGC	Special Assistance Programme (SAP) ... Dept. of Chemistry	945791.00	D - 38(12)
	UGC	Establishment Centre for Study of Social Exclusion and Inclusive Policy	5548608.00	D - 49
Desouza, S.	UGC	Establishment of Womens Studies Centre during XI Plan	91000.00	D - 57
		<b>Total</b>	<b>8860780.00</b>	
<b>Fellowships</b>				
	DST	DST Inspire fellowship under AORC	831459.00	A - 3(73)
Ganguly, Sohani	DST	DST INSPIRE Faculty award	1277515.00	A-3(91)
Meena, Suryanandan	DBT	DBT Fellowship - JRF Dept. of Biotechnology	109115.00	A - 17(13)

Gad, R.S.	DeitY	Vishveshvaraya PhD Scheme in area of ESDM for two full-time candidates	1087964.00	A - 45(6)
Gad, R.S.	DeitY	Vishveshvaraya PhD Scheme in area of ESDM & ITES for five full-time candidates	1944184.00	A - 45(7)
Halder, S.	SERB	SERB-National Post Doctoral Fellowship (N-PDF) (Dept. Microbiol)	1718462.00	A - 66
Rivonker, C.U.	DST?	Inspire Faculty Monitoring	100000.00	A-72
	UGC	Joint UGC-CSIR Junior Research Fellowship	105385.00	D - 15
	UGC	Research Fellowship for maritirious students ..... In Universities / Dept.	1374383.00	D - 16(2)
Hyam, R.K.S.	UGC	Faculty Recharge programme start up grant, Dept. of Physics	600000.00	D- 86
	UGC	Faculty Recharge Programme (FRP) / BSR of UGC	1892027.00	D - 80
		<b>Total</b>	<b>11040494.00</b>	
<b>Chairs</b>				
		Joquim Heliodoro Da Cunha Rivara Research Chair, Dept. of Portuguese	713800.00	B - 25
		Establishment of Diaspora Chair in Goa University	80406.00	D - 68
		<b>Total</b>	<b>794206.00</b>	
<b>Programmes organization</b>				
Priolkar, K.R.		First refresher course in experimental Physics	506455.00	A - 59
Kerkar, S.	DBT	Skill development workshop	3100.00	C - 27(61)
Desouza, S.	NCW	Legal Awareness Programme (Workshop) for Anganwadi Teachers in Goa	43035.00	C - 27(63)
		Conference India - Brazil Dialogue; CLAS	111550.00	C - 37
Mukhopadhyay, P.	UGC	NAAC Awareness Workshop at Goa Uni	44672.00	D - 83
		<b>Total</b>	<b>708812.00</b>	

### 3.7 No. of books published

i) With ISBN No.	7
ii) Chapters in Edited Books	23
iii) Without ISBN No.	0





10. Human Touch 11. IBM 12. ICSSR 13. Indian Council of World Affairs, New Delhi 14. Informatics India 15. Instituto Camoes 16. Instituto de Filosofia 17. Mc-Graw Hill Education 18. Microsoft 19. Myntra 20. Nvidia 21. Oracle 22. Proquest 23. TCS 24. The Dempos Group, Goa 25. UGC 26. University of Porto 27. World Int. Studies Committee, Zurich 28. Youth LEAD, Thailand 29. Y-PEER Youth Network	5. ICSSR 6. Indian Thermal Analysis Society, BRNS 7. International Centre, Goa 8. Joint Science Education Panel of 3 National Science Academies 9. Library Professionals Association 10. MHRD, New Delhi 11. National Sample Survey Organisation, New Delhi 12. NUEPA, New Delhi 13. Robert Bosch GmbH, Germany 14. Sahitya Academi, New Delhi 15. Srijan Technologies Pvt. Ltd. 16. UGC-SAP 17. V.V. Giri National Labour Institute	4. Chemistry Department Faculty and Alumni Association (CDFAA) 5. Govt. of Goa 6. Konkani Bhasha Mandal, Goa 7. Konkani Soraspat Mandal 8. Narayan Zantye College of Commerce, Bicholim, Goa 9. Raut Scientific & General Traders, Panaji, Goa 10. Mina Scientific and Industrial Traders, Mapusa, Goa 11. Sahitya Academi of Karnataka 12. Sangamitra Project 13. S.S. Dempo College of Commerce & Economics, Bambolim, Goa 14. Thomas Stephens Konkani Kendra, Goa	Association (CDFAA) 3. Konkani Soraspat Mandal 4. NAVBD, Delhi 5. UGC-SAP-DRS(III)
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3.12 No. of faculty served as experts, chairpersons or resource persons: 26

3.13 No. of collaborations International: 5 National: 13 Any other: 0

3.14 No. of linkages created during this year: 136

3.15 Total budget for research for current year in lakhs:

From Funding agency	Rs.2,83,13,385.00
From Management of University	--
Total	Rs.2,83,13,385.00

3.16 No. of patents received this year

Type of Patent	Status	Number
National	Applied	1
	Granted	0
International	Applied	0
	Granted	0
Commercialized	Applied	0
	Granted	0

3.17 No. of research awards/ recognitions received by faculty and research fellows of the institute in the year\*

Total	International	National	State	University	District	College
3	0	2	1	0	0	0

\*Kerkar, S. Life Achievement in Science (Venus International Foundation, Chennai); Rodrigues, B.F. Best University Teacher Award 2017 (Directorate of Higher Education, Govt. of Goa); Salker, A.V. National Education Award (Dewang Mehta Foundation)

3.18 No. of faculty from the Institution who are Ph.D. Guides and students registered under them  
Guides: **83** Students registered with them: **298**

3.19 No. of Ph.D. awarded by faculty from the Institution: **76** (at the last convocation held on 7 July 2018)

3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)\*

JRF	5
SRF	5
Project Fellows	0
Any other	7
<ul style="list-style-type: none"> <li>• GU Res Fellowship (1)</li> <li>• ICCR (1)</li> <li>• INSPIRE (1)</li> <li>• Maulana Azad Fellowship for Minorities (1)</li> <li>• Post-Doctoral Fellow (2)</li> </ul>	

<ul style="list-style-type: none"> <li>UGC National OBC Fellowship (1)</li> </ul>	
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\*Only those who are at Departments of University

3.21 No. of students Participated in NSS events:

University level	<b><u>NIL</u></b>	State level	<b><u>NIL</u></b>
National level	<b><u>NIL</u></b>	International level	<b><u>NIL</u></b>

3.22 No. of students participated in NCC events:

University level	<b><u>NIL</u></b>	State level	<b><u>NIL</u></b>
National level	<b><u>NIL</u></b>	International level	<b><u>NIL</u></b>

3.23 No. of Awards won in NSS:

University level	<b><u>NIL</u></b>	State level	<b><u>NIL</u></b>
National level	<b><u>NIL</u></b>	International level	<b><u>NIL</u></b>

3.24 No. of Awards won in NCC:

University level	<b><u>NIL</u></b>	State level	<b><u>NIL</u></b>
National level	<b><u>NIL</u></b>	International level	<b><u>NIL</u></b>

3.25 No. of Extension activities organized

University forum	11
College forum	0
NCC	0
NSS	0
Any other	0

3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility

<ol style="list-style-type: none"> <li>Unnat Bharat Abhiyan (Year round activity)</li> <li>Swachh Bharat Abhiyan (Year round activity)</li> </ol>
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- 3) Visiting Research Professors Programme (VRPP): Courses, presentations, stage shows, etc.
- 4) Directorate of Extra-Mural Studies and Extension Services (5 events)
- 5) A Seminar on Interaction with Biotechnology Industries in Goa (27 Mar 2018)
- 6) Skill Development Workshop for Research Scholars: Chemical Analysis of Biomolecular and Computation (23-24 Nov 2017)
- 7) Workshop for Biology Teachers from Higher Secondary Schools (23 Feb 2018)
- 8) Purple Campaign (The Main Objective of the Programme Was Gender Sensitization and to Create Awareness Among Students about Basic Consumer Rights and Human Rights) (13 Sep 2017)
- 9) Purple Campaign (The Main Objective of the Programme Was to Create Awareness About Gender Equality and to Sensitize the Students and Create Awareness About the Gender Stereotypes Present in the Society) (28 Sep 2017)
- 10) Launch of Goa State Resource Centre for Women and Pre-Marital Counselling Programme (08 Dec 2017)
- 11) Legal Awareness Programme(Workshop) for Anganwadi Teachers in Goa (09 Mar 2018)

#### Criterion – IV

#### 4. Infrastructure and Learning Resources

##### 4.1 Details of increase in infrastructure facilities:

Facilities	Existing		Newly Created		Source of Funding	Total	
	No.	Total Area (Sq. M)	No.	Total Area (Sq. M)		No.	Total Area (Sq. M)
Campus area	01	1630217m2	-	-	-	01	1630217m2
Class rooms	67	4304 m2	-	-	-	67	4304 m2
Laboratories	105	6795 m2	-	-	-	105	6795 m2
Seminar Halls	09	2193 m2	-	-	-	09	2193 m2

Facilities	Existing	Newly Created	Source of Funding	Total
No. of important equipments purchased ( $\geq 10$ lakh) during the current year	NA	4	Please see Table below	
Value of the equipment and furniture purchased during the year (Rs. in Lakhs)	NA	286.59	Univ funds + Projects	

S.No	DEPT.	Name of the equipment	Amount (Rs. In lakhs)	Date of Invoice	Source of Funding
1.	Chemistry	Flash Chromatography Combiflash System RF Lumen	14.5	20/04/2017	Dept. of Science & Technology (DST) Delhi.
2.	Marine Science	Accoustic Doppler Current Profiler with accessories (ADCP)	19.23	28/04/2017	Dept. of Science & Technology (DST) Delhi
3.	Physics	Nikon Eclipse Ni U Upright Optical Microscope with accessories	16.86	27-02-2018	Dept. of Science & Technology (DST) Delhi
4.	Computer Centre	Dell Power Edge R-730 Server 24 rack server (Web and Database Server) and Dell Power Edge R 530 (Backup Server)	13.16	16/05/2017	ICT (UMS) XIIth Plan

#### 4.2 Computerization of administration and library

Select centralised UMS modules are put to use. The catalogue and circulation system of the library is already fully computerised.

#### 4.3 Library services:

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	169497	65610585	3697	1725375	173194	
Reference Books	35287		38	283546	35325	
e-Books	214	1100000	Nil		214	
Journals	243	6856489			232	
e-Journals	6	520922	42	888106	48	
Digital Database	2	427139				
CD & Video	3401		11		3412	
Others (specify)						

#### 4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet services	Student (laptops)	Office	Departments	Others (computer centre)
Existing	2301	24	1GB and 20Mbps	~1500	186	615	1
Added	47				18	27	
Total	2346	24	1GB and 20Mbps	~1500	204	642	1

4.5 Computer, Internet access, training to teachers and students and any other programme for technology upgradation (Networking, e-Governance etc.)

Familiarization programmes for the staff of University on GUMS

4.6 Amount spent on maintenance in lakhs:

Item	Rs. in Lakhs
i) ICT	--
ii) Campus Infrastructure and facilities	156.70
iii) Equipment	55.04
iv) Others	952.69
Total	1164.43

## Criterion – V

### 5. Student Support and Progression

#### 5.1 Contribution of IQAC in enhancing awareness about Student Support Services

Updating website with relevant information

#### 5.2 Efforts made by the institution for tracking the progression

Data is being collected at IQAC on all parameters that indicates progression on different aspects

#### 5.3 (a) Total Number of students

UG (Integrated)	PG	Ph.D.	Others (M.Phil, Cert/Dip)
158	1781	298	18

	PG+ Integrated	PhD	Total
(b) No. of students outside the state	114	41	155
(c) No. of international students	11	2	13

	Number	Percentage
Men	98 (Integrated) + 558 (PG) + 123 (PhD)	34.55
Women	60 (Integrated) + 1223 (PG) + Cert (18) + 175 (PhD)	65.45

	General	SC	ST	OBC	Physically Challenged	Total
2016-17	1710	29	155	431	5	2325
2017-18	1587	33	162	376	6	2158

Demand ratio (2017-18): (1116 available seats: 1807 applications = 1:1.61)

Dropout%: 1-2% (approximately)

#### 5.4 Details of student support mechanism for coaching for competitive examinations (If any)



No. of students beneficiaries: **52**

#### 5.5 No. of students qualified in these examinations

NET: <b>17</b>	SET/SLET: <b>32</b>	GATE: <b>8</b>	CAT: <b>0</b>
IAS/IPS etc: <b>0</b>	State PSC: <b>0</b>	UPSC: <b>0</b>	Other (DBT/JRF): <b>4</b>

#### 5.6 Details of student counselling and career guidance



No. of students benefited: **150 students recruited**

#### 5.7 Details of campus placement

On campus		Off campus	
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
26	110	55	95

#### 5.8 Details of gender sensitization programmes

Date	Title	Audience (UG/PG/PhD students, Faculty, Administrative staff)	Number attended
18 Aug 2017	SHWW(PPR) Sensitisation Prog.	Non-teaching; Adm. staff	79
18 Sep 2017	SHWW(PPR) Sensitisation Prog.	PG, PhD, Faculty Goa Univ.	239

#### 5.9 Students Activities:



### 5.9.1 No. of students participated in

Level:	State/Univ	National	International
Sports and Games	56	0	0
Cultural events	Students from all Depts	NA	NA

### 5.9.2 No. of medals /awards won by students in

Level:	State/Univ	National	International
Sports and Games	2	0	0
Cultural events	20	NA	NA

### 5.10 Scholarships and Financial Support

	Number of students	Amount (Rs. In Lakhs)
Financial support from institution (110 Free Studentship+528 Merit Scholarship+92 Student aid fund)	730	19.87
Financial support from government	344	Gets deposited in the account of beneficiary
Financial support from other sources (Dhempo Charity)	1	0.01
Number of students who received International/ National recognitions	-	-

### 5.11 Student organised / initiatives

Level	Fairs	Exhibitions

State/ University	1	NIL
National	NIL	NIL
International	NIL	NIL

5.12 No. of social initiatives undertaken by the students :

- Large participation of students in the programme such as ‘Swachh Bharat Abhiyan’ is well appreciated by the community.
- Students of Dept. of Women’s Studies organised the Purple Campaign for Equality in 2 colleges

5.13 Major grievances of students (if any) redressed:

No Grievance has been received from University students on the UGC portal for the year 2017-2018

## Criterion – VI

### **6. Governance, Leadership and Management**

#### **6.1 State the Vision and Mission of the institution:**

**Vision:** To meet the relevant and required tertiary level knowledge aspirations and associated employment needs of the State and to strive to attain global levels of excellence in teaching and research.

**Mission:** To effectively and efficiently impart fundamental, appropriate and socio-economically relevant knowledge at the tertiary level of education to those seeking depth of understanding and employment-driven technical competence in their chosen areas of study.

#### 6.2 Does the Institution has a Management Information System

- Yes. Goa University Management System (GUMS) modules are in place now

#### 6.3 Quality improvement strategies adopted by the institution for each of the following:

##### 6.3.1 Curriculum Development

Goa University follows a systematic multi-level process in the design, development and implementation of the Post-Graduate curriculum offered on the campus.

**Level-1:** Based on the curriculum model of UGC/ necessary inputs from other universities, feedback from alumni, parents and industry the individual Departmental Councils propose/suggest structure(s) of the program(s), details of courses, infrastructural and allied requirements.

**Level-2:** The Board of Studies (BOS) comprising of external experts and members of the Faculty from the teaching department concerned and affiliated colleges, reviews the program and courses and makes suitable recommendations for the approval of the Academic Council of the University for implementation.

**Level-3:** Finally, the Programs recommended are discussed and deliberated upon by the Academic Council which approves the course content for implementation preferably from the subsequent academic year. The same is placed on the University website for reference.

**Level-4:** Further every existing program goes through a review/revision based on the feedback from academic audit committee, students and employers.

### 6.3.2 Teaching and Learning

Following practices were offered in one or more programmes

- Skill upgradation for production of wallpapers, posters, brochures, blogs and mini-videos
- Book exhibition to promote reading habits
- Production of Educational DVDs
- Students interaction with Govt. agencies (GTDC, EDC, Smart City) and entrepreneurs
- Electives and credit courses under VRPP
- Project work
- Courses in language and culture supplemented with use of PowerPoint presentations, social media platforms, Duo lingo (online learning platform), WhatsApp quizzes, blogposts, photo stories for creative writing, paintings and sculpture, comic strips, board games, theatrical activities, sessions on cross-cultural awareness, films and music in order to make teaching engaging and interactive
- Use of language lab, DVD player, computer/Internet facilities
- Stage performance
- Field trips
- Open Book examination
- Transparency in the evaluation
- Field Placements

- Guest Lectures, films, discussion of newspaper reports to bring social realities into classroom teaching
- Student Exchange Programmes

### 6.3.3 Examination and Evaluation

- The University's goal is to bring transparency, efficiency through digitization and integration of examination processes. To achieve this goal, the University has joined National Academic Depository (NAD) with NSDL/NDML on 04th January 2018 and data is being currently processed for digital degree certificates. This effort will significantly improve the processes and quality of services for degree retrieval by employers and other stake holders.

### 6.3.4 Research and Development

- Research in the areas of current interest by the faculty and Ph.D. students contribute to the knowledge at large. The outcome of this activity in the form of research publications has been highlighted in the section '3.4 Details on research publications'
- Sponsored and consultancy research work is also carried out at the University. The year 2016-17 in recent past showed highest receipts of funds as indicated in sections 3.2 and 3.6 of this report
- Research publications and information about the PhD students as well as Sponsored research projects are shared over web for benefit of all those interested

### 6.3.5 Library, ICT and physical infrastructure / instrumentation

- A modern library with computer terminals for the students, automated housekeeping including circulation, campus wide access to e-resources make the library as essential infrastructure for the students and research community
- The Computer Centre of the University maintains the website besides providing support services to the ICT infrastructure of the organization including high-speed, state-of-the-art Internet connections
- All the faculty blocks and other buildings are interconnected with roads

### 6.3.6 Human Resource Management

- The two sections of the Administration provide support in managing the human resources
- The faculty are encouraged to attend programmes that benefit their professional competence

### 6.3.7 Faculty and Staff recruitment

- The University follows UGC norms for recruitment to maintain quality
- In the event of shortfall of qualified staff University recruits temporary/contractual staff

### 6.3.8 Industry Interaction / Collaboration

- Continued interactions with industry help in placements and internship for the University students. The departments such as Commerce, Management studies, Computer Science and Technology benefit at large for placements

### 6.3.9 Admission of Students

- Online process of admissions – as a part of Goa Univ Management System (GUMS)
- While some departments offer admissions based on entrance tests, some programmes (MBA, MCA, and M.Sc. in Marine Biotechnology) are based on National level entrance tests

### 6.4 Welfare schemes for

Teaching staff	Medical Health Centre on campus, LTC
Non-teaching staff	LTC, Computer advance, Medical Health Centre on Campus, Consumer Credit Society, Cooperative Society
Students	Earn while you learn, GU Merit Scholarships, Transport, Hostel, Medical Health Centre on Campus

6.5 Total corpus fund generated: Rs.1.6 Lakhs

6.6 Whether annual financial audit has been done: Yes / No

6.7 Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	No	Academic Audit Committee	No	Boards of Study

Administrative	Yes (Financial)	Chartered Accountants, Auditors	Yes	Finance Committee and Executive Council
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#### 6.8 Does the University declares results within 30 days?

For UG Programmes	Yes for all General and most Professional Programmes
For PG Programmes	Yes for most programmes

#### 6.9 What efforts are made by the University for Examination Reforms?

As directed by the Executive Council, the University set up a committee to look into the revaluation procedures. The committee was set up chaired by the Dean, Faculty of Social Sciences, Deans of Faculty of law and Natural Sciences and included the Controller of Examinations of Goa University, senior faculty members, examination staff and Shri M.A. Kakade, Controller of Examinations of Shivaji University, Kolhapur, and Dy Controller of Examinations, SPPU, Pune which met on 15 March 2018. The recommendations of the committee were placed before the Board of Evaluation held on 19 April 2018. It was decided to put up the matter to the Examination Reforms Committee.

The Examination Reforms Committee was set up for looking into reorganisation and digitization of Examination Division. The committee met on 27 April 2018. Mr P. Bhadakwade of SPPU, Pune made a presentation on pre-conduct-conduct and post-conduct. Also two vendors presented their services for bar-coding and online assessment.

The Examination division has initiated the re-organisation of the Division with the following initiatives

1. Creating an Examination IT Cell consisting of 2 Programmers, 1 Console Operator and three junior programmers to configure the Goa University UMS for all its examinations. The Division will process all results from the Nov 2018 examinations onwards
2. New posts for COE and DY Registrar Examinations have been approved and will be filled shortly.
3. The CAP Hall I of the Examination Division is being renovated to house the Professional Section.
4. An unused building has been identified and under renovation for all Post-conduct procedures of the Examination Division.
5. Reorganisation of the Division into Pre and Post Conduct is underway and will be formalised shortly.
6. The University has also onboarded NAD with NSDL /NDML on 04th January 2018 and data is being currently processed for digital degree certificates.
7. Prof. Anuradha Wagle, COE has participated in two National Workshops on Examination Reforms organised by Association of Indian Universities in Deccan College, Pune (14-16 November 2017) and Integral University, Lucknow (8-10 October 2018) and a Leadership in Higher Education Meeting in New Delhi (26-28 February 2018). She has attended presentations and participated in group discussions on Exam Reforms in all the three events.

#### 6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?

- The Ordinances necessary for grant of autonomy have been framed for colleges
- Chowgule College continues to function as an autonomous institution from the 2015-16

#### 6.11 Activities and support from the Alumni Association

- The admission to the Alumni association has gone online with the implementation of GUMS
- Alumni have been given a call to register at the National Academic Depository (NAD) – an initiative of the MHRD-UGC
- Chemistry Department Faculty & Alumni Association (CDFAA) continued with organization of annual seminar, intercollegiate T.Y.B.Sc. symposium, Get-together cum home-coming of students, teachers and non-teaching staff of 25 years old M.Sc. Chemistry batch on 26 January and financial support to the PG and PhD students from economically backward families. CDFAA interact with alumni on social networking website

#### 6.12 Activities and support from the Parent–Teacher Association

- Parent-Teacher Association at the University does not exist

#### 6.13 Development programmes for support staff

- Familiarization on the GUMS Phase II

#### 6.14 Initiatives taken by the institution to make the campus eco-friendly

- Students and teachers participated in cleanliness programme on the occasion Gandhi Jayanti celebration
- Implementation of Swachh Bharat program
- The authorities decided to make a plastic free campus (no use of disposable plastic bottles, eatables that have plastic wrappers will not be sold in the campus outlets, etc)
- Installation of new dust bins all over the campus
- Workshop for the university sweepers and contract staff on cleanliness of campus
- Her Excellency, the Governor of Goa Smt. Mridula Sinha addressed staff and students of Goa University on 29th September 2017 on cleanliness and sensitized the movement

- Under collaboration programme, Rotary Club of Panjim offered 9 units of Sanitary pad dispensers and incinerators installed in 9 different locations around campus
- Organize competition among affiliated colleges and honoured with Swachchatam Mahavidyalaya Samman to best college
- IMBA students participated in the Annual Beach Cleaning activity at the Miramar Beach in association with the Hospitality Industry

## Criterion – VII

### 7. Innovations and Best Practices

7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the institution. Give details.

Innovative practices opted by one or more departments

- Research incentives for publications in journals covered by Scopus/WoK
- An incentive to the students registered for the PG/Doctoral programme (Rs.40000.00) as one time grant in his/her career to attend international conference

7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year

Incentives for the publications in the journals monitored by Scopus/WoK	Implemented
Incentives to students for participation in international conference	Implemented
Website revision	Implemented
Recruitment of teaching and non-teaching staff	Implemented
UG Students Council elections to be democratized and conducted by colleges	Statutes amended
Initiate functionality of GUMS	Implemented

7.3 Give two Best Practices of the institution (*please see the format in the NAAC Self-study Manuals*)



- The Visiting Research Professors programme helps bring doyens to the state for students and interested residents of Goa to interact and learn from them at no fee basis
- Online Institutional repository of publications of the university is unique among the State Universities

#### 7.4 Contribution to environmental awareness / protection

- Please see section 6.14 Initiatives taken by the institution to make the campus eco-friendly

#### 7.5 Whether environmental audit was conducted? Yes No

#### 7.6 Any other relevant information the institution wishes to add. (for example SWOT Analysis)

**NIL**

#### 8. Plans of institution for next year

- Ground work for NAAC: 4<sup>th</sup> cycle
- Adjunct Faculty (Professor of Practice)
- Corporate Training – Executive MBA Programme
- Establishment of New Schools and Departments (Interdisciplinary Studies, Skills development, Value education)
- Introduction of database on awards received by the faculty on the website



**Prof. Pranab Mukhopadhyay**

Director, IQAC/DIQA

Date: November 26, 2018



**Prof. Varun Sahni**

Vice Chancellor and Chairperson, IQAC

Date: November 26, 2018

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**ACADEMIC CALENDAR 2017-2018**

The arrangement for Academic Terms for M.A./M.Sc./M.Com./M.B.A. (FS)/ M.C.A/ M.Tech/B.Lib/ M.Lib for the for the academic year 2017-18 shall be as follows: (on the campus)

Items	Duration	No. of Days
<b>Term -I</b>	06/06/2018 to 24/11/2018	
Reopening	06/06/2018	
Teaching Begins	20/06/2018	
Ganesh Chaturthi Break	17/09/2018 to 18/09/2018	02 days
Diwali Break	05/11/2018 to 07/11/2018	03 days
Teaching Ends	02/11/2018	90 days
Preparatory Break	coincides with Diwali break For students (03/11/18 to 07/11/18)	
SEA- Sem. I / III/ V & Repeat Exam & Assessment	08/11/2018 to 23/11/2018	11 days
<b>Term-II</b>	26/11/2018 to 03/05/2019	
Teaching Begins	26/11/2018	
Christmas Break	24/12/2018 to 28/12/2018	05 days
Teaching Ends	09/04/2019	90 days
Preparatory Break	10/04/2019 to 12/04/2019	04 days
SEA- Sem. II / IV/ VI & Repeat Exam. & Assessment	15/04/2019 to 30/04/2019	11 days
Summer Vacation	05/05/2019 to 05/06/2019	32 days
Reopening	06/06/2019 (Thursday)	

**NOTE:** All breaks except the preparatory breaks are treated as vacation for the teachers.