



# Goa University

## Annual Quality Assurance Report (AQAR)

(June 2015 to May 2016)



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.:	0832-6519048; 0832-6519302
Name of the Head of the Institution:	Dr Satish Shetye (Prof. Varun Sahni wef 19.08.2016)
Tel. No. with STD Code:	0832-6519001
Mobile:	8698099225
Name of the IQAC Co-ordinator:	Prof. Pranab Mukhopadhyay
Mobile:	0832-6519266
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/IQAC.php">https://www.unigoa.ac.in/IQAC.php</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 2015-16 (1 Jun 2015 to 31 May 2016)**

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

(i) 2009-10 (14/06/2013)	(ii) 2010-11(14/06/2013)	(iii) 2011-12 (10/12/2012)
(iv) 2012-13 (30/12/2013)	(v) 2013-14 (19/04/2015)	(vi) 2014-15 (23/10/2015)

#### 1.10 Institutional Status

University:	<u>State</u> / Central /Deemed/ Private
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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	Any other (Specify)	
UGC-COP Programmes		

## 2. IQAC Composition and Activities

2.1 No. of Teachers	8
2.2 No. of Administrative/Technical staff	1
2.3 No. of students	0
2.4 No. of Management representatives	1
2.5 No. of Alumni	1
2.6 No. of any other stakeholder and community representatives	0
2.7 No. of Employers/ Industrialists	1
2.8 No. of other External Experts	2
<b>2.9 Total No. of members</b>	<b>14</b>

2.10 No. of IQAC meetings held in 2015-16: Two (28 Jan 2016, 9 Oct 2015)

### 2.11 No. of meetings with various stakeholders:

Faculty	2
Non-Teaching Staff	
Students	
Alumni	
Others	
<b>Total</b>	<b>2</b>

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

If yes, mention the amount **Not Applicable**

2.13 Seminars and Conferences (only quality related)

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

International	
National	
State	
Institution Level	1
Total	1

(ii) Themes: **Use of Open Source software (Mint OS, LibreOffice, Moodle): 4 Apr 2016**

2.14 Significant Activities and contributions made by IQAC

- |   |
|---|
| <ul style="list-style-type: none"> <li>● Streamlining of GU website</li> <li>● Updation of staff, student databases</li> <li>● Participation in various National Ranking Surveys (NIRF, India Today, The Week, etc.)</li> </ul> |
|---|

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
Completion of institutional repository of all journal/e-publications in digitized form	A repository consisting of over 4500 records (with full-text of 2/3 items is in place) is available on web at <a href="http://irgu.unigoa.ac.in/">http://irgu.unigoa.ac.in/</a>
Conduct training and awareness workshops related to Accreditation for affiliated colleges	Informal interaction with various college IQAC Directors and participation in their IQAC
Conduct a training workshop for college administrators on implementation of CAS guidelines	Director IQAC was a member of the Academic Council. This provided a forum for discussing various CAS related issues in colleges
Updating of PG-Masters and PhD ordinances	IQAC is actively involved in assisting update of Statutes and Ordinances in Goa University as an ongoing process
Introduction of CBCS at the UG level	In process. There was extensive stakeholder consultation undertaken by the university and it is expected to be implemented in AY 2017-18

Implementation of initial modules of UMS	In trial stage
Complete Online fees payment gateway for all students	Completed for all new entrants in the PG and PhD programmes
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

\* 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 approves the Annual Report 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>	87		02	36
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 stakeholders and alumni are encouraged to give feedback directly to the concerned official including the Vice Chancellor either by e-mail or in person.*

##### 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 if necessary.
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##### 1.5 Any new Department/Centre introduced during the year. **No**

## Criterion – II

### 2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty: Data as from last year's report

	Total	Asst. Professors	Associate Professors	Professors	Others
Sanctioned	191	96	64	31	0
Direct Appointment	108	76	25	7	0
CAS	108	31	27	50	0

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

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

No recruitment of permanent staff seen as from NIRF data this year

Asst. Professors		Associate Professors		Professors		Others		Total	
R	V	R	V	R	V	R	V	R	V
	20		39		24		0		83

2.4 No. of Guest and Visiting faculty and Temporary faculty

Temp faculty data as from NIRF (temp – continuous + temp – contract)

Guest	Visiting (VRPP)	Temporary
	17	42

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended Seminars/ Workshops*	4	21	10
Presented papers	74	104	10
Resource Persons	4	30	7

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

2.6 Innovative processes adopted by the institution in Teaching and Learning: (as of last year)

<ul style="list-style-type: none"><li>● Use of presentation tools, documentaries, videos, MOOC/MOODLE type exercises, multimedia as language teaching tool, observation and classroom teaching experience</li><li>● Group activities, games, workshops, exploration of websites of various institutions</li><li>● Industry internship</li><li>● Seminars, assignments and discussions</li><li>● MA Dissertation and Participant learning</li><li>● Introduction of skill based courses</li><li>● Field visits for awareness building</li></ul>
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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)

- Multiple choice questions (including Online)
- Open book exam
- Tests, seminars and assignments
- OMR for admission test
- Group discussions
- Film review

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

19
19
23

2.10 Average percentage of attendance of students: **83%**

2.11 Course/Programme wise distribution of pass percentage:

Course	Grade_O		Grade_A		Grade_B+		Grade_B		Grade_C		Grade_D		F_(Fail)		Total	
	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
Masters																
Applied Geology	11	47.83	8	34.78	3	13.04	0	0.00	0	0.00	0	0.00	1	4.35	23	100.00
Biochemistry	5	27.78	6	33.33	5	27.78	1	5.56	0	0.00	1	5.56	0	0.00	18	100.00
Biotechnology	9	32.14	11	39.29	3	10.71	2	7.14	0	0.00	1	3.57	2	7.14	28	100.00
Botany	12	41.38	10	34.48	0	0.00	2	6.90	0	0.00	2	6.90	3	10.34	29	100.00
Business Administration (FS)	0	0.00	0	0.00	0	0.00	79	100.00	0	0.00	0	0.00	0	0.00	79	100.00
Chemistry	32	44.44	24	33.33	3	4.17	2	2.78	0	0.00	0	0.00	11	15.28	72	100.00
Economics	2	5.26	10	26.32	4	10.53	6	15.79	1	2.63	1	2.63	14	36.84	38	100.00
Electronics	4	28.57	8	57.14	0	0.00	0	0.00	1	7.14	0	0.00	1	7.14	14	100.00
English	9	22.50	16	40.00	6	15.00	2	5.00	1	2.50	1	2.50	5	12.50	40	100.00
French	3	60.00	1	20.00	0	0.00	0	0.00	0	0.00	1	20.00	0	0.00	5	100.00
Hindi	8	21.62	20	54.05	5	13.51	3	8.11	0	0.00	0	0.00	1	2.70	37	100.00
History	10	30.30	14	42.42	3	9.09	1	3.03	0	0.00	0	0.00	5	15.15	33	100.00
International Studies	2	40.00	1	20.00	0	0.00	0	0.00	0	0.00	0	0.00	2	40.00	5	100.00
Konkani	6	13.95	22	51.16	2	4.65	8	18.60	1	2.33	0	0.00	4	9.30	43	100.00
Commerce	45	80.36	11	19.64	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	56	100.00
Marathi	7	25.93	11	40.74	2	7.41	3	11.11	1	3.70	0	0.00	3	11.11	27	100.00
Marine Biotechnology	4	33.33	7	58.33	0	0.00	0	0.00	0	0.00	0	0.00	1	8.33	12	100.00
Marine Microbiology	2	15.38	5	38.46	4	30.77	0	0.00	0	0.00	0	0.00	2	15.38	13	100.00
Marine Science	9	50.00	4	22.22	0	0.00	0	0.00	1	5.56	0	0.00	4	22.22	18	100.00
Mathematics	3	15.00	1	5.00	1	5.00	0	0.00	0	0.00	0	0.00	15	75.00	20	100.00
Microbiology	14	70.00	5	25.00	0	0.00	0	0.00	0	0.00	1	5.00	0	0.00	20	100.00
Philosophy	0	0.00	6	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6	100.00
Physics	5	21.74	3	13.04	1	4.35	1	4.35	2	8.70	1	4.35	10	43.48	23	100.00

Political Science	4	16.00	15	60.00	4	16.00	1	4.00	1	4.00	0	0.00	0	0.00	25	100.00
Portuguese	1	25.00	1	25.00	0	0.00	0	0.00	0	0.00	0	0.00	2	50.00	4	100.00
Sociology	2	12.50	6	37.50	2	12.50	2	12.50	0	0.00	2	12.50	2	12.50	16	100.00
Zoology	15	65.22	8	34.78	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	23	100.00
Business Administration		0.00		0.00		0.00	58	100.00		0.00		0.00		0.00	58	100.00
					Distinction		First Class		Second Class		Pass Class		Fails		Total	
BLISc	1 yr				4	16.00	12	48.00	6	24.00	0	0.00	3	12.00	25	100.00
MLISc	1 yr				15	62.50	7	29.17	0	0.00	0	0.00	2	8.33	24	100.00
MCA	3 yr				4	6.67	32	53.33	22	36.67	0	0.00	2	3.33	60	100.00
MBA Integrated	5 yr				3	37.50	5	62.50	0	0.00	0	0.00	0	0.00	8	100.00

## 2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes: (as earlier)

<ul style="list-style-type: none"> <li>• The IQAC has come establish itself as the Nodal Centre for information gathering and dissemination in the campus. It is organically linked to the students, administration as well as teaching faculty. It builds links between the past students and Goa's citizens at large.</li> <li>• It has already pioneered an online student feedback system on each course conducted in the university. In 2013-14 the IQAC successfully experimented with collection of academic output from each faculty member in online format. This was repeated successfully in 2014-15/ 2015-16.</li> <li>• This helps the University in regularly receiving information updates, preparing the Annual Report and in responding to many routine RTI queries on academic activities.</li> <li>• In a further fillip to the role of the IQAC, now all Board of Studies reports are marked to the IQAC for information.</li> <li>• The IQAC has helped in website update and all time tables semester-wise are now placed on the website.</li> </ul>
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## 2.13 Initiatives undertaken towards faculty development\*

<i>Faculty / Staff Development Programmes</i>	<i>Number of programmes</i>	<i>Number of faculty benefited</i>
Refresher courses	1	35
UGC – Faculty Improvement Programme		
HRD programmes		
Orientation programmes	2	85
Faculty exchange programme		
Staff training conducted by the university		
Staff training conducted by other institutions		
Summer / Winter schools, Workshops, etc.		
Others Short Term Courses	1	28

\*As indicated by the Academic Staff College where faculty members from Goa University and elsewhere attended these courses

## 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	276	48	04	04
Technical Staff	90	58	04	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>● IQAC aims at sensitizing and promoting research climate in the university in two ways – creating the awareness and by finding solutions to research hurdles</li> <li>● It maintains and updates the publications repository of faculty publications</li> <li>● In 2015-16, IQAC conducted one workshop on use of open source software such as Mint (OS), LibreOffice (office applications) and Moodle (Course Management System)</li> <li>● Sometimes research is hampered by bureaucratic procedures which is a great disincentive to researchers. IQAC also assists researchers in finding suitable solutions in managing research grants through suitable and incremental changes in administrative procedures</li> </ul>
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#### 3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	13	19	31	25
Outlay in Rs. Lakhs	Please see the lists below			

#### Completed projects

PI	Dept	Title	Funding Agency	Sanctioned amount (Rs. In lakhs)	Duration
Krishnan, S.	Botany	Large Scale Screening for High Garcinol and Hydroxycitric Acid, in Vitro Culture and Molecular Characterization of Garcinia species from the Western Ghats of India	CSIR	12.69	Oct 2012 - Mar 2016
Sharma, P.K.	Botany	Infrastructure development grant for Biodiversity, Eco-physiology and Biotechnology	DST-FIST	60.00	
Salker, A.V.	Chemistry	Selective and Controlled Catalytic Oxidation of Chemically Sensitive Organic Substrates Over Metal Organic Compounds and Mixed Metal Oxides	CSIR	20.00	May 2012 - May 2015
Mukhopadhyay, P.	Economics	Linking Coastal Management with Ecosystems Services in India	NCSCM, MoEFCC (GoI)	19.70	Nov 2013 - Nov 2015
Hegde-Desai, P.G. (PI); Borde, N. (Co-PI)	Management Studies	Financial Literacy and other Factors Affecting the Usage of SME Platform of BSE by SMEs in Goa	The Stock Exchange Investors'	0.65	2015-16

			Protection Fund		
Borde, N. (PI); Hegde-Desai, P.G. (Co-PI)	Management Studies	Share Value Creation Index for Sensex Companies	The Stock Exchange Investors' Protection Fund	0.65	2015-16
Borde, N. (PI); Hegde-Desai, P.G.; Dayanand, M.S. and Mekoth, N. (Co-PI)	Management Studies	Starting a new mineral water business in Goa	Mr. Rajesh Solanki, Proprietor, New Venture	1.04	2015-16
Matta, V.M.	Marine Sciences	Atmospheric Deposition and its Influence on Nutrients in Coastal Waters of Goa: West Coast of India	MoES (GoI)	47.37	Sep 2011 - Sep 2016
Menon, H.B.	Marine Sciences	Variability of Colour Components in Estuarine and Coastal Regions of Eastern Arabian Sea and its Predictive Potential to Naval Applications	NRB, Ministry of Defence (GoI)	61.47	Jul 2011 - Jun 2014
Pai, R.V.	Physics	Cluster Mean-Field Theory for Bose	DSTE-Goa	6.78	Jan 2014 - Jan 2017
Priolkar, K.R.	Physics	Mechanisms of New Long-Lasting Luminescence Biomarkers	Indo French Commission for Promotion of Advanced Research (IFCPAR), New Delhi, India	24.28	Jul 2011 - Jun 2015
Shringare, A.P.	Political Science	Panchayat Raj Institutions and Rural Development in Goa	ICSSR	5.00	2014-07-01
Coelho, J.P. (PI); Somayaji, G. (Co-PI)	Sociology	Constructing Nation in The Diaspora: Political Sociological Study of the Tibetan Refugees in Bylakuppr Settlements South India	ICSSR	1.00	Mar 2013 - Mar 2016

### Ongoing projects

PI	Dept	Title	Funding Agency	Sanctioned amount (Rs. In lakhs)	Duration
Kerkar, S.	Biotechnology	Impact of Tourism on Estuarine Water Quality and its Effect on the Mangrove and Salt-Pan Ecosystems of Goa	DSTE, GOA	19.55	Nov 2013 - Oct 2016
Muraleedharan, U.D. (PI); Matta, V.M.(Co-PI)	Biotechnology	Biogeochemical Studies of the Arabian Sea and the Effect of Riverine Inputs from the Mandovi-Zuari System along the West Coast of India	MoES	64.00	Sep 2011 - Sep 2016
Janarthanam, M.K.	Botany	All India Coordinated Project on Sacred Grove Ecosystem Service Assessment: Ecosystem Service Assessment in Sacred Groves of Goa	MoEF	36.41	Mar 2012 - Mar 2017
Janarthanam, M.K.; Krishnan, S.	Botany	Preventing Extinction and Improving Conservation Status of Threatened Plants Through Application of Biotechnological Tools	DBT	35.71	Mar 2012 - Mar 2017
Nadkarni, V.S.	Chemistry	Development of Novel Polymeric Detectors for Selective Dosimetric Analysis	AERB	25.19	Oct 2013 - Oct 2016

Santosh, G.	Chemistry	Self Assembly of Amphiphilic Donor Acceptor Dyads in to Nanostructures for Applications in Optoelectronics	DST	35.00	Aug 2013 - Sep 2018
Pawar, J.D. (PI); Karmali, R.N. (Co-PI)	Computer Science & Technology	Indian Language Corpora Initiative (ILCI) – Phase 2 carried out in consortium mode for seventeen Languages by sixteen institutes. Work for Konkani carried out at Goa University.	Department of electronics and information technology (DeitY), Gol	45.43	Mar 2012 – Oct 2016
Karmali, R.N. (PI); Pawar, J.D. (Co-PI), Wagh, R.S. (Co-PI), Desai, S.N. (Co-PI)	Computer Science & Technology	Shallow Parser Tools for Indian Languages (SPT-IL). Carried out in Consortium mode for twelve languages by ten institutes. Work for Konkani carried out at Goa University.	Department of electronics and information technology (DeitY), Gol	36.00	Jun 2012 – Dec 2016
Mahender, K.	Earth Science	Dolomitization and Geochemical Nature of Proterozoic Carbonate Rocks of Kaladgi Basin: Implications of the Origin and Depositional Environments	UGC	12.50	Mar 2013 - Mar 2016
Menon, H.B.	Marine Sciences	Aerosol Radiative Forcing over India	VSSC, ISRO, Trivandrum	50.00	Apr 2012 - Mar 2017
Menon, H.B.	Marine Sciences	Optical Characterization of Case II: Waters and Retrieval of Colour Components from an Optical Sensor	INCOIS, MoES (Gol)	61.23	Apr 2013 - Mar 2017
Menon, H.B.	Marine Sciences	Establishing a Network Station at Goa University for Atmospheric Boundary Layer Measurements	The Noble Project of ISRO-GBP-SPL, VSSC, ISRO, (Gol)	86.65	Apr 2013 - Mar 2017
Nayak, G.N.	Marine Sciences	Estimation of Beryllium from the Polar Regions and Lake Sediments: Paleo-Oceanographic Implications	IUAC-UGC	6.03	Jan 2014 - Jan 2017
Nayak, G.N.	Marine Sciences	High Resolution Paleoclimatic Studies from the Bay of Bengal	MoES, (Gol)	12.78	Mar 2012 - Mar 2015
Rivonker, C.U.	Marine Sciences	Harmful Algal Bloom Monitoring (Mangalore to Goa)	CMLRE, MoES (Gol)	57.00	Oct 2012 - Oct 2017
Rivonker, C.U.	Marine Sciences	Ballast Water Control and Management	CSIR-NIO, Goa	106.00	Sep 2011 - Sep 2016
Pai, R.V.	Physics	Random-Phase- Approximation Excitation Spectra for Bose-Hubbard Models	CSIR	12.42	Apr 2014 - Mar 2017
Priolkar, K.R.	Physics	Effect of Structural Disorder on Martensitic Transformation in Shape Memory Alloys	DST	59.02	Apr 2015 - Mar 2018

#### Sanctioned projects (2015-16)

PI	Dept	Title	Funding Agency	Sanctioned amount (Rs. In lakhs)	Duration
Kerker, S.	Biotechnology	Development of Alternative Sustainable Fish Feeds to Promote Human Health using Novel Non-conventional Indigenous Ingredients	Newton Fund Global Research Partnership in Aquaculture	342.94	
Rodrigues, B.F.	Botany	Bio-Physical Characterization and Site Suitability Analysis for Indian Mangroves (PRACRITI Phase-II Programme)	ISRO, Ahmedabad	20.00	
Sharma, P.K.	Botany	Biodiversity, Eco-physiology and Biotechnology UGC-SAP (DRS III)	UGC-SAP	118.00	Apr 2015 – Mar 2020

Majik, M.S.	Chemistry	Development of Nucleosides and Marine Natural Products-Based Therapeutics and Their Synthetic Studies	DST	24.00	
Majik, M.S.	Chemistry	Development of Analytical Methods and their Application in Biomolecular and Environmental Research	UGC	6.00	
Morajkar, P.P.	Chemistry	Effect of Reservoir Rock Composition on Oxidation of Hydrocarbons	DST	48.40	Mar 2016 – Mar 2019
Morajkar, P.P.	Chemistry	Synthesis Characterization and Photocatalytic Application of Nanocomposites	UGC	6.00	Mar 2015 – Mar 2018
Singh, P.R.	Chemistry	Electrochemical Studies of Polycrystalline Gold and Platinum Electrodes in Surfactant and Ionic Liquid Media and its use for Study of some well known Redox Systems	UGC	6.00	
Singh, P.R.	Chemistry	Electrochemical Preparation of Polyaniline-carbon Nanoparticles (PANI-CNPs) and Polyaniline-carbon Nanoparticles with Pt Nanoparticles (PAN-CNPs-Pt)....Fuel Cell Applications	SERB	27.00	
Srinivasan, B.R.	Chemistry	Hydrothermal Synthesis, Characterization and Properties of New S-block Metal-Organic Frameworks	UGC	9.92	
Kamat, V.V.	Computer Science & Technology	CAD-ELearn	Govt. of Goa	10.00	
Mahender, K.	Earth Science	Mineral Resources Conservation – GIS Data Base	UGC-SAP DRS-III level program	74.00	Apr 2013 – Mar 2018
Viegas, A.A.	Earth Science	Mining and Minerals of Goa			
Viswanath, T.A.	Earth Science	Igneous and Metamorphic Petrology			
Chachadi, A.G.	Earth Science	Groundwater Resources			
Gad, R.S. (PI); Naik, G.M., Parab, J.S. (Co-PI)	Electronics	Development of Coconut Plucking Robot	ICAR	25.22	
Gad, R.S.	Electronics	Vishveshvaraya PhD Scheme in area of ESDM for two full-time candidates	DeitY	47.18	
Gad, R.S. (Nodal Officer)	Electronics	Vishveshvaraya PhD Scheme in area of ESDM & ITES for five full-time candidates	DeitY	199.00	
Naik, G.M.	Electronics	Visweswarayya Research grant for Electronics &IT	DeitY	33.00	Mar 2016 – Feb 2019
Parab, J.S.	Electronics	Visweswarayya Research grant for Electronics & IT	DeitY	33.00	Mar 2016 – Feb 2019
Hegde-Desai, P.G. (PI); Borde, N. (Co-PI)	Management Studies	Financing of Micro, Small and Medium Enterprises (MSMEs) in Goa (With reference to specified sectors)	UGC	6.37	
Naik, M.M.	Microbiology	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	11.50	Dec 2015 – Nov 2017
D'Costa, P.M.	Microbiology	Fate of Diatoms During Microbially-mediated Decomposition Processes	SERB-DST	6.50	Aug 2014 – Aug 2017
Haldar, S.	Microbiology	Application of Metagenomic Technique for Isolation of Microbes from Mangroves for Potential use in Biofertilization and Bioremediation	SERB-DST N-PDF	2.00	
Desa, J.A.E.	Physics	Temperature Dependent Studies of Some Glass Structures and Structures of Some Superparamagnetic Glasses	UGC-DAE	1.25	Jan 2015 – Dec 2017
Pai, R.V.	Physics	Quantum Phases of Spin-1 Bosonic Atoms in Bichromatic Superlattices	UGC	14.39	Jul 2015 – Jun 2018

Raut-Desai, R. (PI); Desa, J.A.E. (Co-PI)	Physics	Mesoscopic Structural Investigation on Magnetic Porous Materials by SANS	UGC-DAE	1.35	Jan 2016 – Dec 2018
Roy, R.	Zoology	Indo-UK Global Partnership Project on Aquaculture	DBT	101.00	Apr 2016 – Mar 2019

### Proposed projects (2015-16)

PI	Dept	Title	Funding Agency	Proposed amount (In lakhs)
Tilve, S.G.	Chemistry	Vishveshwaraya Ph.D. scheme in ESDM and IT/ITES	EIT, New Delhi	
Krishnan, S.	Chemistry	Dye yielding plants of Goa and their potential use in biological and textile staining	DSTE, Goa	10.82
Rodrigues, B.F.	Botany	Screening for efficient microbial consortium for yield improvement in vigna unauiculate (L) walp	DSTE, Goa	11.15
Tilve, S.G.	Chemistry	Synthesis of mesoporous TiO <sub>2</sub> , and doped TiO <sub>2</sub> nanomaterials and their catalytic applications	DSTE, Goa	12.90
Nirmala, R.	Management Studies	Perceived role of women leaders in improving organisation performance	ICSSR, New Delhi	8.66
Sudhir, C.	Physics	Study fabrication and characterization of hybrid photonic plasmonic cavities and their applications to refractive index sensing	DST, New Delhi	50.53
Pahari, B.	Physics	Study of the structural defects and ion conduction mechanistic features in oxide-ion and proton conducting electrolyte materials	DST, New Delhi	50.79
Deshpande, K.	Chemistry	Assessment and removal of some toxic metal ions from drinking water in the vicinity of mining area of Goa.	UGC	50.63
Tilve, S.G.	Chemistry	Diastereo and enantioselective synthesis of alkaloids containing piperidine and piperidine motif	CSIR	24.86
Tilve, S.G.	Chemistry	Molecular iodine as a green catalyst for the synthesis of bioactive heterocycles	DSTE, Goa	12.24
D'Souza, S.	Womens Studies	Holistic health traditional practices of tribal women in cancona taluka - Goa.	NCW, New Delhi	18.00
Kerkar, S.	Biotech	Bioremediation of heavy metals using biosurfactant produced by halotolerant bacteria conjugated with nanoiron.	DBT, New Delhi	107.86
Rodrigues, B.F.	Botany	Diversity taxonomy and conservation of Arbuscular mycorrhizal (AM) fungi from western hilly areas of Goa.	MoES, New Delhi	22.58

PankajSingh	Chemistry	Electrochemical preparation of polyanilinecarbon nanoparticles and composite thin films on carbon nanoparticles and composite thin films on highly oriented pyrolytic graphite in presence of in situ generated CNPs from HOPG substrate itself and on gold electrode surface respectively by polymerization of aniline in an ionic liquid media and its use for catalytic electrochemical oxidation of anodic fuels such as methanol and ethanol for fuel cell applications.	SERB, New Delhi	26.88
Tilve, S.G.	Chemistry	Intramolecular dehydrogenative coupling (IMDC) reaction for the synthesis of heterocyclic scaffolds.	DSTE, Goa	1172.25
Salker, A.V.	Chemistry	Nano size active materials for catalytic detoxification and sensing toxic gases.	RUSA	59.00
Srinivasan, B.R.	Chemistry	Hydrothermal synthesis characterization and properties of new s-block metal-organic frameworks.	UGC	6.25
Roy, R.	Physics	Nutrigenomics values of edible bivalves in combating the inflammatory diseases in Mice, MUS, Muscylus.	DST	59.18
Krishnan, S.	Chemistry	Biodiversity documentation grain quality evaluation histochemical and biochemical profiling DNA barcoding and gene haployp analysis of scented rice varieties of western and north eastern India.	DBT, New Delhi	154.39
Dhuri, S.N.	Chemistry	Synthesis characterisation and biomimetic oxidation reactions by non-heme high valent metal-oxygen species.	UGC	37.40
Majik, M.	Chemistry	Development of nucleosides and marine natural products - based therapeutics and their synthesis studies.	SERB - DST	25.28
Gad, R.S.	Electronics	Development of coconut plucking robot (cocorobot)	ICAR, New Delhi	68.68
Rivonker, C.U.	Marine Sciences	Implications of Marine biotoxins of public health and seafood safety: strategic Expertise network for monitoring.	DST, New Delhi	9.92
Sudhir, C.	Physics	Optical manipulation and trapping single gold shell encapsulated semiconductor quantum dots and applications towards biomaging.	DST, New Delhi	55.83
Pahari, B.	Physics	Solid-state NMR and computational study to probe the structural defects and ion conduction magnetic features in anti-perovskite based electrolyte materials.	DST, New Delhi	30.50

### 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		204
Non-Peer Review Journals	0	0	0
e-Journals	Part of Peer-review journals		
Conference proceedings	22	16	38

### 3.5 Details on Impact factor of publications:

Range	0.294 to 12.113
Average	2.03
h-index	9*
Nos. in SCOPUS	141

\*As in Web of Science for the years 2015-16 (searched on 6 Dec 2016)

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

	Name of Faculty (Principal Investigator)	Name of the Funding agency	Title of the Project	Sanctioned order no.	Sanctioned date	Amount Received (In Rupees)	Budget head
	Capacity building						
1	DeSouza, S.	Ministry of Women & Child Development	Sanghamitra: Goa State Coalition for Reproductive and Social Health of Adolescents	11/91/2013-NMEW	30/03/2015	740782.00	A-57(1)
				Total Rupees Capacity Building		740782	
	Interdisciplinary						
1	Karmali, R.; Pawar, J.D.	DeitY	Development of Shallow Parser Tools for 12 Indian Languages (SPT-IL)	CALTS/SPT-IL/2015	08/11/2015	1096000.00	A-45(4)
2	Pawar, J.D.; Karmali, R.	DeitY	Indian Language Corpora Initiatives (ILCI) - Phase II Konkani Project			1322942.00	A-45(5)
3	Rivonker, C.U.	NIO, Dona Paula	Ballast Water Management Programme, India (BAMPI)	NIO/MCMRD/BAMBI/GU/2011	11 Jul 2011	1105705.00	A-46(1)
				Total Rupees Interdisciplinary		3524647.00	
	Students research						
1		CSIR	CSIR Junior/Senior Fellowship			2644400.00	A-1(1)
2	Meena, S.N.	DBT	DBT Fellowship	DBT/JRF/15/FIN/122 & BCIL/HRD/DBT-JRF/2015-16	19-06-2015 & 11-12-15	726255.00	A-17(13)

3	Gad, R.S.	DeitY	Visvesvaraya Ph.D. Scheme for Dept. of Electronics	NO.PHD-MLA/04(57)2015-16	08/05/2015	812500.00	A-45(7)
4	Minaxi (Microbiol)	DST	Study the Biological .....	DST/KIRAN/SORF-PM/025/2015/01/C	31-11-2015	191870.00	A-3(83)
5		DST	DST INSPIRE Fellowship under AORC .... (Ph.D)			2975158.00	A-3(73)
6		UGC	UGC Research Fellowship for maritorious students in University	NO.F.7-69/2007(BSR)	02/04/2016	1794103.00	D-16(2)
7		UGC	UGC-JRF/SRF in Science, Humanities and Social Science	NO.F.17-72/2008/(SA-I) & NO.F.17-72/2008/(SA-I)	278/2015 & 3/11/2015	912839.00	D-16(10)
8	Jagtap, Shweta, D.	UGC	UGC-Post Doctoral Fellowship	NO.F.13-657/2012(BSR)	23/06/2015	96360.00	D-16(11)
9	Srinivasan, B.R.	UGC	UGC BSR Research Fellowship, Dept. of Chemistry	NO.F.7-69/2007(BSR)	02/04/2016	2616243.00	D-16(13)
10	Pai, R.V.	UGC	BSR Research Fellowship, Dept. of Physics	NO.F.7-66/2007(BSR)	25/06/2015	817200.00	D-16(14)
				Total Rupees Student Research		1,35,86,928.00	
	Major research						
1	Nadkarni, V.S.	AERB	Development of novel polymeric detectors for selective dosimetric analysis	ITSD/CSRP/PROJ 54/06/14	28/11/2014	812576.00	A44(3)
2	Krishnan, S.	CSIR	Large Scale Screening for High Garcinol and Hydroxycitric acid, In Vitro Culture and Molecular Characterization of Garcinia Species from the Western Ghats of India	38(1348)/12/EMR-II	16 Oct 2012	436327.00	A-1(32)
3	Shyama, S.K.	DAE	Evaluation of the Genotoxic Effect of Ionizing Radiation in Somatic Germinal Cells of Fishes	2009/36/5-BRNS/20175	29/07/2015	348950.00	A-13(8)
4	Janarthanam, M.K.	DBT	Preventing Extinction and Improving Conservation Status of Threatened Plants Through Application of Biotechnological Tools	BT/Env/BC/01/2010	17/07/2015	1184000.00	A-17(14)

5	Roy, R.	DBT/ Newton Fund Global Research Partnership in Aquaculture	Indo-UK Global Partnership Project on Aquaculture	BT/IN/IN00-UK/BBSRC-Aqua/35/RC/2015-16	28/03/2016	4850000.00	A-17(17)
6	Fernandes, J.B.	DST	Synthesis Characterisation.....	SR/NM/NS-86/2009	12/05/2015	221740.00	A-3(71)
7	Majik, M.S.	DST	Development of Nucleosides and Marine Natural Products-Based Therapeutics and Their Synthetic Studies	YSS/2014/000776	12/02/2016	1116000.00	A-3(85)
8	Jathavedan, Anju	DST	Analysis of persistent organic pollutants (POPs) in water and sediments of mandovi and zuari rivers in Goa and the assessment of bioaccumulation of POPs	NASI/SORF-I/2015-16/11	20/01/2016	338800.00	A-3(86)
9	Naik, M.M.	DST	Studies on Involvement of Quorum Sensing Molecules in Development of Biofilm and Expression of Virulence Genes in Listeria monocytogenes and Staphylococcus aureus Isolated from Dairy Industry	YES/2014/000258	09/02/2016	600000.00	A-3(88)
10	Morajkar, P.P.	DST	Effect of Reservoir Rock Composition on Oxidation of Hydrocarbons	ECR/2015/00047	14/01/2016	3613333.00	A-3(89)
11		DST-FIST	Assistance for FIST Programme Dept. of Marine Science	NO.SR/FST/LSI-571/2013[C]	25/05/2015	8900000.00	A-3(81)
12	Pai, R.V.	DST-FIST	DST FIST Dept. of Physics	NO.SR/FST/PSI-190/2014[C]	17/06/2015	7100000.00	A-3(82)
13	Srinivasan, B.R.	DST-FIST	DST-FIST Programme Dept. of Chemistry	NO.SR/FST/CS II-034/2014 [C]	20/03/2016	18000000.00	A-3(90)
14	Santosh, G.	DST	INSPIRE Faculty Award ....	DST/INSPIRE FACULTY AWARD/2012/CH/71	28/01/2016	1293907.00	A-3(79)
15	Kerkar, Savita	DSTE, Goa	Impact of tourism on estuarine water quality and effect on mangrove &	8-210-2014/STE/DIR/Acct/151	08/05/2015	566800.00	B-20

			saltpan ecosystem of Goa				
16	Gad, R.S. (PI); Naik, G.M., Parab, J.S. (Co-PI)	ICAR	Development of Coconut Plucking Robot	Aggri.Engg.27(12)/2015-AE	20/01/2016	914000.00	A-64
17	Shringare, A.	ICSSR	Panchayat Raj Institutions and Rural Development in Goa	02/77/2014-15/RPR	23/04/2015	200000.00	A-49(4)
18	Priolkar, K.R.	IFCPAR				108000.00	C-36
19	Menon, H.B.	INCOIS	Optical Characterization of Case II: Waters and Retrieval of Colour Components from an Optical Sensor	INCOIS:F&A XIII:D:019	31/03/2015	1241939.00	A-2(31)
20	Menon, H.B.	ISRO	Aerosol Characterization Along the West Coast of India	SPL:GBP:ARFI:09	15/09/2014	1000000.00	A-38(6)
21	Menon, H.B.	ISRO	Establishing a network station at Goa University for atmospheric boundary layer measurements under the noble project of ISRO- GBP-SPL, VSSC, ISRO	SPL/NOBLE/GU/FT/14	07/10/2014	1500000.00	A-38(7)
22	Rodrigues, B.F.	ISRO	Bio-Physical Characterization and Site Suitability Analysis for Indian Mangroves (PRACRITI Phase-II Programme)	EPSA	09/06/2015	500000.00	A-38(8)
23	Nayak, G.N.	MES	High Resolution Paleoclimatic Studies from the Bay of Bengal	MOES/36/00IS/SIBER/07	31/03/2016	200000.00	A-2(27)
24	Mukhopadhyay, P.	MoEF	Linking Coastal Zone Management to Ecosystem Services in India	21/RCO/IHR/IST/Ecosystem Services/2013-14-692	10/06/2014	788000.00	A-7(14)
25	Matta, V.M.	MOES	Atmospheric Deposition and its Influence on Nutrients in Coastal Waters of Goa: West Coast of India	MOES/36/00IS/SIBER/07	31/03/2016	591307.00	A-2(25)
26	Muraleedharan, U.D.	MOES	Biogeochemical Studies of the Arabian Sea and the Effect of Riverine Inputs from the Mandovi-	MOES/36/00IS/SIBER/07	31/03/2016	849174.00	A-2(26)

			Zuari System along the West Coast of India				
27	Shyama, S.K.	MoES	Genotoxicity Studies on Field Populations of Commercially Important Fin Fishes and Shellfishes of Central West Coast of India	MOES/11-MRDF/1/38/P/10PC-III	11/08/2015	224481.00	A-2(24)
28	D'Costa, P.M.	SERB	Fate of Diatoms During Microbially-mediated Decomposition Processes	SB/YS/LS/319/2013	03/08/2015	250000.00	A-61
29	Morajkar, P.P.	UGC	Synthesis Characterization and Photocatalytic Application of Nanocomposites	F.30-102/2015(BSR)	30/03/2015	600000.00	D-81(1)
30	Singh, P.R.	UGC	Electrochemical Studies of Polycrystalline Gold and Platinum Electrodes in Surfactant and Ionic Liquid Media and its use for Study of some well known Redox Systems	F.30-102/2015(BSR)	30/03/2015	600000.00	D-81(2)
31	Majik, M.S.	UGC	Development of Analytical Methods and their Application in Biomolecular and Environmental Research	F.30-102/2015(BSR)	30/03/2015	600000.00	D-81(3)
32	Cherukulappurath, S.	UGC	UGC-Startup grant	F.4-5(117-FRP)/2014(BSR)	31/03/2015	600000.00	D-82(1)
33	Pahari, B.	UGC	Structural investigations of transparent conducting oxide nanoparticles by advanced high-resolution NMR	F.4-5(117-FRP)/2014(BSR)	31/03/2015	600000.00	D-82(2)
34	Tilve, S.G.	UGC	Green Chemistry approach for the Synthesis ....	43-197/2014(SR)	27/07/2015	506700.00	D-85
35	Hegde-Desai, P.G. (PI); Borde, N. (Co-PI)	UGC	Financing of Micro, Small and Medium Enterprises (MSMEs) in Goa (With reference to specified sectors)	F.5-241/2014(HRP)	12/11/2015	378600.00	D-87

36	Pai, R.V.	UGC	Quantum Phases of Spin-1 Bosonic Atoms in Bichromatic Superlattices	43-520/2014(SR)	16/10/2015	1078600.00	D-88
37	Singh, P.R.	UGC	Electrochemical Studies of Polycrystalline Gold and Platinum Electrodes in Surfactant and Ionic Liquid Media and its use for Study of Some Well Known Redox Systems	YSS/2014/000788	02/09/2015	1516933.00	A-3(84)
38	Gad, R.S.	UGC	Multimodal Biometric System Design with Embedded Technologies	41-664/2012(SR)	22/06/2015	185554.00	D-73
39	Nayak, G.N.	UGC	Estimation of Beryllium from the Polar Regions and Lake Sediments: Paleo-Oceanographic Implications	UAC XIII-7/UFR-55317/	21/07/2015	178757.00	D-78
40	Chachadi, A.G.	UGC-SAP	UGC SAP in the Dept. of Geology DRS II	NO.F.550/4/DRS/2013(SAP-I)	10/01/2015	316927.00	D-38(10)
41	Rodrigues, B.F.	UGC-SAP	UGC SAP in the Dept of Botany	NO.F.3-9/2015/DRS-III(SAP-II)	31/08/2015	970000.00	D-38(11)
42	Srinivasan, B.R.	UGC-SAP	UGC SAP in the Dept of Chemistry	NO.F.540/14/DRS-1/2015(SAP-I)	20/07/2015	1600000.00	D-38(12)
43	Mukhopadhyay, P.	University of London	Assess the impact of the changes in the global financial and monetary system on developing countries with special reference to India	NA	15.5.2015	376411.97	C-16(45)
Total Rupees Major Research						6,78,57,816.97	

### 3.7 No. of books published

i) With ISBN No.	11
ii) Chapters in Edited Books	30
iii) Without ISBN No.	0

### 3.8 No. of University Departments receiving funds from

UGC-SAP	8
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3.12 No. of faculty served as experts, chairpersons or resource persons: 50

3.13 No. of collaborations International: **2** National: **9** Any other: **0**

3.14 No. of linkages created during this year: **12**

3.15 Total budget for research for current year in lakhs:

From Funding agency	Rs.8,57,10,174.00
From Management of University	Rs. 67,00,000.00
Total	Rs.9,24,10,174.00

3.16 No. of patents received this year

Type of Patent	Status	Number
National	Applied	0
	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
9	2	6	0	1	0	0

3.18 No. of faculty from the Institution who are Ph.D. Guides and students registered under them  
Guides: **84** Students registered with them: **347**

3.19 No. of Ph.D. awarded by faculty from the Institution: **38** (at the last convocation)

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

JRF	30
SRF	17
Project Fellows	0
Any other	8
• INSPIRE (6)	
• GU RES FELLOWSHIP (1)	
• ICCR (1)	

3.21 No. of students Participated in NSS events:

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University level **NIL** State level **NIL**  
 National level **NIL** International level **NIL**

3.22 No. of students participated in NCC events:

University level **NIL** State level **NIL**  
 National level **NIL** International level **NIL**

3.23 No. of Awards won in NSS:

University level **NIL** State level **NIL**  
 National level **NIL** International level **NIL**

3.24 No. of Awards won in NCC:

University level **NIL** State level **NIL**  
 National level **NIL** International level **NIL**

3.25 No. of Extension activities organized

University forum	0
College forum	0
NCC	0
NSS	0
Any other (Blood Donation & Children's Awareness)	2

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

<ul style="list-style-type: none"> <li>● Public lectures by experts under Visiting Research Professors Programme (VRPP) in various areas of knowledge</li> <li>● Choir and Orchestra</li> <li>● Series of meetings with various stakeholders working with adolescents in Goa as a part of Goa State Convergence Project on Adolescent Health and Rights (Sanghmitra project)</li> </ul>
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#### Criterion – IV

#### 4. Infrastructure and Learning Resources

4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Funding	Total

Campus area	16,30,218/- Sq.m.		Goa government	16,30,218/- Sq.m.
Class rooms	3477/- Sq.m.		Goa University + Goa government	3477/- Sq.m.
Laboratories	6542/- Sq.m.		Goa University + UGC + Goa government	6542/- Sq.m.
Seminar Halls	8 nos.		Goa University + Goa government	8 nos.
No. of important equipments purchased ( $\geq$ 10 lakh) during the current year				
Value of the equipment and furniture purchased during the year (Rs. in Lakhs)		387.01 (Rs Lakhs)	Goa University + Goa government	

#### 4.2 Computerization of administration and library

Centralised UMS is in early stages of testing. The library system is already fully computerised. Library added 18 computers and 1 server utilizing funds from Shodhsindhu

#### 4.3 Library services:

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	159101		4274	1083839	163401	
Reference Books	35232		25	260606	35257	
e-Books	214	1100000	Nil		214	
Journals	305	7123199	-39	0	266	7290577
e-Journals						
Digital Database	1		Nil		1	
CD & Video	3373		23		3396	
Others (specify)						

#### 4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet services	Student (laptops)	Computer Labs	Office	Departments	Others (computer centre)
Existing	1505	13	1GB and 20Mbps	1000	13	100 desk	305 desk; 100 lap	1
Added	861	11	00	500	11	37 desk; 19 lap	321 desk; (-16) lap	0
Total	2366	24	1GB and 20Mbps	1500	24	156	710	1

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

The Goa University internet facility is provided through a 1GBPS internet lease line from NKN and a redundant 20Mbps link through another service provider, which becomes active seamlessly on failure of the main link. The intranet is on 1Gbps Fibre backbone, with layer 3 switching at core and Layer 2 manageable switches at distribution. There are redundant links laid at appropriate places to avoid failure at single point. The security is maintained using a world class UTM system at the Gateway. There are wireless hotspots at appropriate places covering class rooms, corridors, hostels and guest houses, managed by a wireless controller.

4.6 Amount spent on maintenance in lakhs:

i) ICT	-
ii) Campus Infrastructure and facilities	202.94
iii) Equipments	30.01
iv) Others	4530.00
<b>Total:</b>	<b>4762.95</b>

#### Criterion – V

### 5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

Awareness is created through website and routine digital communication on the campus

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

Goa University Alumni Association makes efforts in tracking progression of students who passed out from University

### 5.3 (a) Total Number of students

UG (Integrated)	PG	Ph.D.	Others
90	1909	496	0

	PG+ Integrated	PhD	Total
(b) No. of students outside the state	93	139	232
(c) No. of international students	15	2	17

	Number	Percentage
Men	54 (Integrated) + 613 (PG) + 215 (PhD)	35.35
Women	36 (Integrated) + 1296 (PG) + 281 (PhD)	64.65

	General	SC	ST	OBC	Physically Challenged	Total
Last year	1614	26	142	347	3	2132
This year	1814	42	175	462	2	2495

Demand ratio: 1.77:1.00 (975 Admitted; 751 Wait list )

Dropout%: 1-2% (approximately)

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

- A Moodle page has been designed -for free online NET/SET coaching  
<http://goalnet.unigoa.ac.in:8090/course/view.php?id=855>
- Training students for UGC-NET in French

No. of students beneficiaries: **15**

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

NET: <u>9</u>	SET/SLET: <u>0</u>	GATE: <u>2</u>	CAT: <u>0</u>
IAS/IPS etc: <u>0</u>	State PSC: <u>1</u>	UPSC: <u>5</u>	Other: <u>0</u>

## 5.6 Details of student counselling and career guidance

Continuous counselling & Career guidance; Display of notices on notice board; Personal discussion on interview techniques; Sending details of job vacancies by email; A MOODLE page- MARGDARSHAN- has been designed for Students

No. of students benefited: **15**

## 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
29	128	80	51

## 5.8 Details of gender sensitization programmes

- Compiled Rights awareness and sensitization handout for GU students on the Sexual Harassment of Women at the Workplace (Prevention, Prohibition and Redressal) Act
- Workshop on Gender Sensitization and Perspective Building for school counselors and mental health volunteers from Keri, Valpoi, Mapusa, Siolim and Thane (17 May 2015)
- Making Equality a Reality (MEAR 2016): Inter-Collegiate and Inter-Departmental festival of Competitions (8 Mar 2016)

## 5.9 Students Activities:

### 5.9.1 No. of students participated in

Level:	State/Univ	National	International
Sports and Games	51	2	0
cultural events	NA	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	NA	NA	NA

## 5.10 Scholarships and Financial Support

	Number of students	Amount (Rs. In Lakhs)
Financial support from institution		67
Financial support from government		
Financial support from other sources		
Number of students who received International/ National recognitions		

### 5.11 Student organised / initiatives

Level	Fairs	Exhibitions
State/ University	1	
National		
International		

### 5.12 No. of social initiatives undertaken by the students :

### 5.13 Major grievances of students (if any) redressed:

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## 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

- After the series of deliberations with the MIS vendor the system is likely to be in place in 2017-18.

#### 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

- Smart classrooms, computer laboratories for the students attached to every department, scientific laboratories to the concerned departments, Internet facility add value to the teaching and learning process

### 6.3.3 Examination and Evaluation

- Internal Assessment of PG courses.
- Transparency: Students shown answer scripts after evaluation before the announcement of results.
- Grievance Committee addresses issues of disagreement.

### 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 2015-16 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
- Orientation programmes for the staff at the rank of assistant registrar in the administration are organized every alternate year

### 6.3.7 Faculty and Staff recruitment

- The University follows UGC norms for recruitment to maintain quality
- The University maintains roster to honour reservation policy
- 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 Management studies, Computer Science and Technology benefit at large for the placements
- Scientist-Industry Interaction at Goa Chamber of Commerce and Industries (GCCCI) was organized on 10 Oct 2015 as Public outreach event of Asian Mycological congress held at Goa University

### 6.3.9 Admission of Students

- Online process of admissions has become a practice since past few years, that has brought transparency in the system
- 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
- Over 700 students to some programmes together were in wait-list for admissions in the year 2015

## 6.4 Welfare schemes

Teaching staff	Medical Health Centre on campus, LTC
Non-teaching staff	Festival advances, 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.2,56,000.00

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	Yes	Academic Audit Committee	Yes	Boards of Study
Administrative	Yes (Financial)	Chartered Accountants, Auditors	Yes	Finance Committee and Executive Council

6.8 Does the University/ Autonomous College declares results within 30 days?

For UG Programmes	Yes	No
For PG Programmes	Yes	No

6.9 What efforts are made by the University/ Autonomous College for Examination Reforms?

<ul style="list-style-type: none"><li>• The University has adopted a system of Continuous assessment consisting of Intra-semester and semester-end assessments with 100% internal assessment. There is complete transparency in the evaluation process. Students are shown answer papers before declaration of results.</li><li>• The University's final degree certificates are issued with photo identity.</li><li>• The proposed University Management System will smoothen the process of submission of marks electronically to speed up the declaration of final results.</li></ul>
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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 started functioning as an autonomous institution from the 2015-16.
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6.11 Activities and support from the Alumni Association

News about job openings, alumni meet
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6.12 Activities and support from the Parent–Teacher Association

- Parent-Teacher Association at the University does not exist
- Other associations that exist are: Goa University Teachers Association, Goa University, Non-Teaching Staff Association and Goa University Officer’s Association that take matters pertaining to University upliftment and welfare

6.13 Development programmes for support staff

Short-term staff training

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

- 5 KVA hybrid (wind and solar) power plant power entire USIC electrical appliances (tube lights and fans). In addition, the University campus has 83 solar lamps for street lighting
- Two major rainwater harvesting structures on the campus are recharging the depleted groundwater reservoirs to the tune of about 40 million liters per year (about two month’s water consumption volume on the campus – approx. 5 lakh liters/day)
- University has ensured conservation of pre-existing seasonal pools and ponds wherever possible to boost aquatic biodiversity. Instead of check dams, the University uses diversion canals and ‘jalkunds’ made from plastic sheets to store water

**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.

Placing of Time tables on the website helps I better coordination for the CBSCS programme.

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

Sr. No.	Plan as stated in 2014-15 IQAC report	Action taken
1	Completion of institutional repository of all journal/e-publications in digitised form.	Purchase of in-House high speed scanner has been initiated with the formation of a committee to evaluate models and recommend the same. This would help in the digitization efforts of the university

2	Conduct training and awareness workshops related to Accreditation for affiliated colleges.	
3	Conduct a training workshop for college administrators on implementation of CAS guidelines.	
4	Updating of PG-Masters and PhD ordinances. Introduction of CBCS at the UG level.	Updation of PG and PhD ordinances is ongoing. The CBCS at the UG level was deferred to 2017-18 AY to resolve some teething issues. There is high powered committee that is overseeing the process.
5	Implementation of initial modules of UMS	User workshop and training has started. The beta version in test stage.
6	Complete Online fees payment gateway for all students.	Completed for all new applicants.
7	Have a coordinated time table across the campus to facilitate the functioning of CBCS system.	Implemented. With the new AY, all departments place their Time Tables on their homepage.

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

- |   |
|---|
| <ul style="list-style-type: none"> <li>● Complete online admission and payment of fees system and on-line submission of PBAS by faculty</li> <li>● 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</li> </ul> |
|---|

7.4 Contribution to environmental awareness / protection

Water harvesting and social forestry project in association with the Forest department
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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**

- The revised IQAC Statute to be implemented to conform to the NAAC guidelines
- Up-gradation of website – and formulation of IT Policy of Goa University
- Student election reform process to be initiated
- Mechanism for transition of PhD students to uploading of thesis on repository to be simplified
- PhD rules to be amended in order to comply with UGC's new notified regulations
- Explore campus planning with environmental safeguards through appropriate bodies
- Create infrastructure for document digitisation on campus

Pranab Mukhopadhyay  
Director, IQAC

Varun Sahni  
Vice Chancellor and Chairperson, IQAC

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**Annexure 2.15**

**ACADEMIC CALENDAR 2015-2016** 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 2015-16 shall be as follows: (on the campus)

<b>Item</b>	<b>Duration</b>	<b>No. of Days</b>
<b>Term - I</b>	<b>08/06/2015 to 24/11/2015</b>	
Teaching begins	15/06/2015	
Teaching ends	28/10/2015	90 days
Ganesh Chaturthi Break	21/09/2015 to 23/09/2015	03 days
Preparatory Break	29/10/2015 to 01/11/2015	04 days
Diwali Break	11/11/2015 to 13/11/2015	03 days
SEA – Sem. I/III/V & Repeat Exam & assessment	02/11/2015 to 23/11/2015	11 days
<b>Term – II</b>	<b>25/11/2015 to 05/05/2016</b>	
Teaching begins	25/11/2015	
Teaching ends	13/04/2016	90 days
Christmas Break	28/12/2015 to 01/01/2016	05 days
Preparatory Break	14/04/2016 to 17/04/2016	04 days
SEA – Sem. II/IV/VI & Repeat Exam & assessment	18/04/2016 to 02/05/2016	11 days
Summer Vacation	06/05/2016 to 05/06/2016	31 days
Reopening	06/06/2016	

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