

Evaluative Report of the Department

1. Name of the Department : **Physics**
2. Year of Establishment : 2007
3. Is the Department part of a school / Faculty of the university?
: Yes. It is a part of the School of Science and Humanities.
4. Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated Ph.D., D.Sc., D.Litt., etc.)

Name of the Programme	specialization	Duration	Fulltime / part-time
M.Sc	Physics	2 years	Regular
M.Phil.	Physics	1 year 2 years	Full Time Part Time
Ph.D.	Physics	2 years 3 years 4 years	With M.Phil. FT With PG Full time With PG Part time

5. Interdisciplinary programmes and departments involved :
 - Free elective courses are offered to BTech students
 1. Astrophysics
 2. Thin Film Technology for Engineers
 - Physics courses were offered for M.Sc Nanoscience & Nanotechnology and M.Tech Nanotechnology students
6. Courses in collaboration with other universities, industries, foreign institutions etc.:

The International Association for the Exchange of Students for Technical Experience (IAESTE) participated in the Department of physics, Karunya University.

S. No.	Student Name	Country From	Research area	Supervisor
1.	Elizabeth Zherpherl	Germany	Multilayer thinfilms	Dr. S. Rajesh
2.	Markus obermeyer	Austria	Thin film solar cell	Dr. S. Rajesh
3.	Ryan Rostan	United Kingdom	Crystal Growth	Dr. Kingson Solomon
4.	Amangalan	Mangolia	Crystal Growth	Dr. M. Haris
5.	Abdul Hamid Hussin	Syria	Organic Light Emitting Diode	Dr. Suganthi Devadason
6.	Uemaa	Mangolia	Organic solar cells	Dr. Suganthi Devadason
7.	Betty	Germany	Non-linear optics solution	Dr. Thokala Solomon Raju
8.	Anniek	Switzerland	Polymer electrode fuel	Dr. A. Sakunthala

	Geissguehler		cells	
9.	Ms. Neenu Jacob MSc Student (2012-14)	Austria	Non-linear optics	Dr. Thokala Solomon Raju
		<i>From Karunya University to abroad under IAESTE program</i>		
10.	Mr. Philop Nathaniel MSc Student (2013-15)	Germany	Nanomaterials	Dr. Edwin Jeyaraj

7. Details of programmes discontinued, if any with reasons : NIL

8. Examination system:

- Semester System
- CBCS Pattern from 2013 onwards

9. Participation of the department in the courses offered by other departments

a. Applied Physics; b. Applied Physics Lab; c. Astro – Physics; d. Acoustics & Optics; and e. Engg. Physics f. Thin film Technology for Engineers	B. Tech – Aerospace, Civil, Mechanical, ECE, EIE, EEE, EMT, Bio-Tech, Bio-Info, CSE, IT and Food Processing, All Engg Departments
a. Mechanics and Properties of Matter; b. Properties of Matter Lab; c. Heat and Optics Lab; d. Optics and Photonics; e. Electromagnetism; f. Quantum Physics; g. Nanophysics Lab; h. Optics and Photonics; i. Statistical Mechanics; and j. Vacuum and Thin Film Technology	MSc – Nano Science & Nanotechnology
a. Engg Principles of Nanotechnology; b. Thermodynamics and Quantum Mechanics for Nanoscale Systems; c. Industrial Nanotechnology; and d. Nano Characterization Lab	M. Tech - Nanotechnology

10. Number of teaching posts sanctioned, filled and actual (Professors / Associate Professors / Assistant Professors / others)

	Sanctioned	Filled / actual
Professor	4	4
Associate Professor	3	3
Assistant Professors	9	9

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

S. No	Name	Designation	Qualification	Specialization	No. of years of experience	No. of Ph.D. / M.Phil. students guided for the last 4 years
1.	Dr. Suganthi Devadason *	Professor & Head	Ph.D	Condensed Matter Physics	28	8/4
2.	Dr. T. Mahalingam#	Research Professor	Ph.D	Thin Films	*Relieved from the department from July 2015	1/0
3.	Dr.J.Suthagar#	Professor	Ph.D	Thin Films	# Relieved from the department from 2014	
4.	Dr.S.Rajesh*	Professor	Ph.D	Thin Films	15	6/2
5.	Dr.Thokkala Solomon Raju*	Associate Professor	Ph.D	Theoretical Physics	* Deputed to Department of Nanoscience and Nanotechnology from September 2014	0/1
6.	Dr.S.Edwin Jayaraj**	Associate Professor	Ph.D	Spectroscopy	* Relieved from the department from August 2015	0/0
7.	Dr.M.Haris	Associate Professor	Ph.D	Crystal Growth	14 years 10 months ** Leave on loss of pay from June 2015	2/0
8.	Dr.A.Kingson Solomon Jeevaraj	Assistant Professor (S.G)	Ph.D	Nanofluids	6 years 1 year post doc 10 years 4 months	6/1
9.	Dr.D.Khanna	Assistant Professor (S.G)	Ph.D	Radiation Physics	6 years	0/0
10.	Dr.B.Vidhya*	Assistant Professor	Ph.D	Nanomaterials	4 years 6 months	0/1
11.	Dr.M.Senthil Kumar	Assistant Professor	Ph.D	Crystal Growth	* Deputed to Department of Nanoscience and Nanotechnology from July 2015	0/1
12.	Dr.A.Sakunthala	Assistant Professor	Ph.D	Solid State Ionics	4 years 3 months	1/1
13.	Dr.A.Abiram	Assistant Professor	Ph.D	Computational Physics	4 years	0/0
14.	Mrs.G.Johnsy Arputhavalli	Assistant Professor	M.Phil	Thin films	3 year teaching 1 year Post Doc 6 years 11 months	0/0
15.	Mrs.R.Jebabeula	Assistant Professor	M.Phil	Dye Sensitized Solar cells	6 years 10 months	0/0
16.	Mrs. T.Meritta Anto Britto	Assistant Professor	M.Phil	Theoretical Physics	5 years 4 months	0/0

12. List of Senior Visiting Fellows, adjunct faculty, emeritus professors:

- Dr. Minn Tsong Lin, Professor, Dept of Physics, Nano electronics laboratory, National Taiwan University as Adjunct faculty.

13. Percentage of classes taken by temporary faculty – programme-wise information: Nil

14. Programme-wise Student-Teacher ratio

Name of the Programme	No. of faculty	No. of students	Student-teacher ratio
B.Tech. (1 Year)	12 Faculty members are handling I B.Tech Subjects	---	---
M.Sc.Physics	4		6:1/---

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual.

No. of Staff	Sanctioned	Filled	Actual
Technical Staff	2	2	2
Administrative staff	--	--	--

16. Research thrust areas as recognized by major funding agencies

DST	CSIR	BRNS	DRDO
Theoretical Physics	Nanofluids	Energy	Optoelectronics
Solid State Ionics	Solar Cells	Plasma Physics	Sensors

17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

Name of the faculty with designation	Title of the Project	Funding agency	Grants received in Rs.	Communication reference No. with date
Dr.A.Sakunthala	Lithium ion dynamics in manganese based cathodes for high power lithium ion battery	BRNS-DAE	Total: Rs19,24,750	No.2012/34/32/BRNS/1221 Dated 8/8/2012
Dr.A.Sakunthala	Development of high power lithium ion polymer battery	DST	Total: Rs 16,68,000	Ref.No.SR/FTP/PS-192/2011 dated 22.5.2013
Dr.Thokala Solomon Raju	Dynamics of self-similar waves in asymmetric twin-core fibers	DST	Total Sanctioned: Rs 12,60,000 Rs. 5,40,000 received as first installment	SR/FTP/PS-132/2012 dated 21.6.2013

18. Inter-institutional collaborative projects and associated grants received

a) National Collaboration - Nil

b) International collaboration

1. Prof. S. Rajesh and V. Arivazhagan, Norwegian Technical University, YGGDRASIL mobility fellowship (Ref. No. 219721/F11) for Rs, 12,00,000 /-.

2. Dr. M. Haris and M. Amgalan – Department of Science and Technology – Developing Country Scientists –Regional Training for Foreigners – Rs.2,70,000/-.
 3. Dr.M. Haris and Kekeli David N'KONOU – Department of Science and Technology – Developing Country Scientists –Regional Training for Foreigners – Rs.2,70,000
 4. Dr.M.Haris and Dr.Mazabalo Baneto – University of Lome, Togo, CICS, Chennai Rs.40,000/-
 5. Inter-institutional research collaboration with Norwegian Technical University, Norway has brought out two research publications in international peer reviewed journals
 6. Inter-institutional research collaboration and Student internship program with National University Of Singapore has brought out two research publications in international peer reviewed journals
 7. Inter-institutional research collaboration with National Taiwan University and Department of Optoelectronics and Nanostructure Science, Shizuoka University, Japan has brought out one research publications each in international peer reviewed journals
19. Departmental projects funded by DST-FIST, UGC-SAP/CAS, DPE, DBT, ICSSR, AICTE etc. total grants received. - Nil
20. Research facility / Centre with
- State recognition - Nil
 - National recognition - Nil
 - International recognition - Nil
21. Special research laboratories sponsored by / created by industry or corporate bodies
Nil
22. Publications
Number of papers published in peer reviewed journals (national / international) is given below:
For details please refer **Appendix P-1.**

	2011	2012	2013	2014	2015
No. of papers published in peer reviewed journals (national/ international)	10/15	1/20	2/49	0/21	0/13
Monographs	-	-	-	-	-
Chapters in Books	-	-	-	-	-
Edited books/Books with ISBN	-	-	--	--	-
No. of papers listed in Scopus	8	11	44	21	13
Citation index – range / average :	Min 1- Max 8/ Ave 3.75	Min 1- Max 13/ Ave 5.33	Min 1- Max 15/ Ave 2.5	Min 1 - Max 3/ Ave 1.66	Min 0- Max 1/ Ave 0.2
SNIP	Min – 0.139 Max-1.836 Average -0.763	Min - 0.362 Max-1.378 Average - 0.879	Min – 0.139 Max-4.76 Average - 0.266	Min – 0.295 Max-1.353 Average - 0.945	Min – 1.020 Max-1.642 Average - 1.133
SJR	Min –0.139 Max-1.828 Average -0.524	Min –0.194 Max-1.828 Average -0.703	Min –3.866 Max-0.161 Average - 0.652	Min –0.21 Max-1.034 Average - 0.539	Min –0.25 Max-1.091 Average - 0.642
IPP – range / average:	0.435-2.363 / Average 1.238	0.469-2.363/ Average 1.612	4.772-0.338/ Average 1.70	0.6-7.4/ Average 0.68	2.999- 0.674/ Average- 1.692
h-index	7	8	9	6	3

23. Details of patents and income generated : Nil
24. Areas of consultancy and income generated: Usage of thin film deposition Unit
Rs. 2,300.00 (2014-2015)
25. Faculty selected nationally / internationally to visit other laboratories / institutions / industries in India and abroad

Name of the faculty with designation	Name of the company / institution visited	Period of visit		Purpose
		From	To	
Dr. A. Kingson Solomon Jeevaraj Assistant Professor(S.G)	Instrument Technology Research Centre, Taiwan	17.10.2011	28.10.2011	Instrument Technology Workshop
Dr. J. Suthagar Professor	Instrument Technology Research Centre, Taiwan	15.10.2012	26.10.2012	Instrument Technology Workshop
Dr. A. Abiram	International Centre for Theoretical Physics – Trieste Italy	05.08.2013	16.08.2013	Theoretical Physics Workshop
Dr. T. Solomon Raju	Indian Institute of Science Education and Research (IISER), Kolkata	22.05.2013	16.06.2013	IISER Computational centre
Dr.A.Sakunthala	National University of Singapore (NUS)	28.06.2015	04.07.2015	International conference and Advance Batteries lab, NUS visit

26. Faculty serving in
- National Committees : Nil
 - international committees : Nil
 - Editorial Boards

Name of the faculty with designation	Name of the Board / Details	Position held	Duration
Dr. T. Mahalingam, Research Professor	Optics (International Journal), USA	Editorial Board member	December, 2012

- Dr. A. Sakunthala received international travel grant and conference registration fees from Department of Science and Technology, Govt of India, to present two papers in The International Conference on Materials for Advanced Technologies (ICMAT-2015) during 28.6.2015 to 3.7.2015 held at Singapore
- Dr. A. Sakunthala acted as chair in the in The International Conference on Materials for Advanced Technologies (ICMAT-2015) on 3.7.15 held at Singapore.

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programmes, workshops, training programmes and similar programmes)

Please refer **Appendix: P-2**

S. No	Year	Faculty recharging strategies
1.	2011	1
2.	2012	-
3.	2013	6
4.	2014	4
5.	2015	18

28. Student projects

- Percentage of students who have done in-house projects excluding inter-departmental projects

	Number of students	Percentage
2009-11 (M.Sc)	5	100
2010-12 (M.Sc)	7	100
2011-13(M.Sc)	8	100
2012-14 (M.Sc)	13	100
2013-15 (M.Sc)	10	100
2010- 11(M.Phil)	1	100
2012 – 13(M.Phil)	1	100
2013-14 (M.Phil)	4	100
2014-15 (M.Phil)	2	100

- Percentage of students doing projects in collaboration with other universities / industry / institute Nil

29. Awards / recognitions received at the national and international level by

- Faculty : Nil
- Doctoral / post doctoral fellows: Nil

S. No	Name of the Student with Register No.	Details of awards received	Awarding authority
1.	M.Premalatha PR11PH004	Inspire Fellowship	DST
2.	M.Amgalan D S 13PH1001	DST-RTF-DCS	DST-NAM
3.	N’Konou Kekeli David RTFPH001	DST-RTF-DCS	DST-NAM
4.	Dr.Mazabalo Baneto CICS PH001	Research Award	CICS-Chennai
5.	Mr. Arivazagan RR10PH001	YGGDRASIL mobility programme	Norway
6.	P. Senthil Kumar RR12PH004	Foreign Research Student Internship Award	National University of Singapore

30. Seminars / conferences / workshops organized and the source of funding (national / international) with details of outstanding participants, if any.

Name of the Programme	Duration	Amount received	Funding Agency	Participants
National Conference on Nanomaterials	17-18, October 2008	Rs. 1,00,000/-	DST, CSIR	200
National Conference on	03-04, December	Rs. 1,00,000/-	DST, CSIR	200

Nanomaterials	2010			
National Conference on Nanomaterials	03-04, December 2012	Rs. 1,25,000/-	DST, CSIR, BRNS	235
National Workshop on thin Film coating	06 May 2015	----	---	30

31. Code of ethics for research followed by the departments.
 Department of Physics follows the University code of ethics as laid down for any Act of Plagiarism.

The School Research Committee (SRC) checks the originality of the research project sent for external funding agencies.

Public Viva-Voce examination is conducted for the award of M.Phil and Ph.D. Degrees.

The department strictly follows the recommendations of the UGC regulations for admission and monitoring the progress of the research through regular DC meetings. The awarded M.Phil and Ph.D thesis are uploaded in the UGC website.

32. Student profile programme-wise

The students are admitted by the admission office.

Name of the programme	Number of students					
	SC	ST	BC	OC	Physically challenged	Foreign Students
2011-13 (M.Sc)	--	--	4	3	--	1
2012-14 (M.Sc)	--	--	9	4	--	--
2013-15 (M.Sc)	--	--	8	2	--	--
2012-13 (M.Phil)	--	--	1	--	--	--
2013-14 (M.Phil)	--	--	4	--	--	--
2014-15 (M.Phil)	--	--	1	--	--	--

33. Diversity of students

Name of the programme (refer to question no.4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M.Sc (2011 -13)	--	37%	50%	13%
M.Sc (2012 -14)	--	80%	20%	--
M.Sc (2013 -15)	--	70%	30%	--
M.Phil (2011-15)	50%	50%	--	--
Ph.D (2011-15)	23%	72%	5%	--

34. **How many students have cleared all Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.**

Name of the Student	Reg. No.	Examination cleared	Year of passing	Remarks
P. Senthilkumar	RR12PH004	SLET	March 2013	nil

35. **Student progression**

Student progression	Percentage against enrolled
PG to M.Phil.	20%
PG to Ph.D.	40%
Ph.D. to Post-Doctoral	10%
Employed	
• Campus selection	10%
• Other than campus recruitment	20%
Entrepreneurs	Nil

36. **Diversity of staff**

Percentage of faculty who are graduates	
Of the same university	Nil
From other universities within the State	80%
From universities from other States	6.6%
From universities outside the country	13.3%

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period.

Ph.D Awarded – 1 (Dr. M. Senthilkumar during Jan 2012 from Anna University Chennai), M.Phil Awarded - Nil

38. Present details of departmental infrastructural facilities with regard to

- a) Library – 740 Text books
- b) Internet facilities to staff and students – Wi-fi and LAN connections
- c) Total number of class rooms – M.Sc Physics – 2 class rooms
Ph.D Scholars – 1 room
- d) Class rooms with ICT facility : 2 Class rooms
- e) Students’ laboratories : UG : Applied Physics Lab
PG : Advanced Physics Lab
- f) Research laboratories : 1.Thin Film Research Lab
2. Nanofluids Lab
3. Crystal Growth and Electro Optics Lab

39. List of doctoral, post-doctoral students and Research Associates

- a. From the host institution / university Please refer **Appendix: P-3**
- b. From other institutions / universities Please refer **Appendix: P-4**

40. Number of post graduate students getting financial assistance from the University: Nil

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology. Nil

42. Does the department obtain feedback from

- a) Faculty on curriculum as well as teaching-learning evaluation? If yes, how does the department utilize the feedback?
Yes. Faculty can give their suggestion regarding the improvement, upgradation or any modification the syllabus in the Curriculum Development Cell (CDC).

In addition to the above, Academic Audit is conducted at the end of every semester by external experts and the feedback is communicated to the faculty to improve their teaching learning performance.

- b) Students on staff, curriculum and teaching-learning evaluation and how does the department utilize the feedback?

Yes. Feedback from the students is being taken every semester regarding teaching learning process and curriculum through class committee meeting. Suggestions to improve are communicated to the respective Faculties for improvement.

- c) Alumni and employers on the programmes offered and how does the department utilize the feedback?

Some of the students (Alumni) are pursuing Ph.D in KITS now and the department will frequently get the feedback from them. The department continuously implements the suggestions/feedback from alumni.

43. List the distinguished alumni of the department (maximum 10)

Name of the Student	Reg. No.	Course of study	Branch	Year of completion	Position held	Organization / institution
Pratiba Ponnary	RR13PH1005	MSc	Physics	2015	PhD	Hindustan University Chennai
Dr. Melvin David kumar	08ZF005	PhD	Physics	2014	Post doctoral fellow	Incheon National University South Korea
Dr. Arivazhagan	RR10PH001	PhD	Physics	2014	Post doctoral fellow	Bergen University Norway
Tejaswi Ashok Hedge	RR13PH1009	MSc	Physics	2014	PhD	VIT University Chennai
Maheshkumar	PR12PH1009	MSc	Physics	2014	PhD	Karunya University
Ratheskannan	PR12PH1010	MSc	Physics	2014	PhD	Karunya University
Ramkumar		MSc	Physics	2014	JRF & PhD	JRF in BARC project & SSIET, Coimbatore
Anand Jesuraj	PR12PH1001	MSc	Physics	2014	JRF & PhD	Sathyabama University
Mr. Ricky Wilfred	PR11PH1003	MSc	Physics	2013	JRF	Physics Research Laboratory, Ahmedabad
Mr. Toijam Sunder Meetei	PR12PH1009	MSc	Physics	2014	JRF & PhD	Department of Electrical Engineering Sastra University
Mr. Chandan Kumar	PR10PH1004	MSc	Physics	2012	JRF & PhD	Centre for Nano and Soft matter, Bangalore

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts. Please refer **Appendix: P-5**

S. No	Year	student enrichment programmes
1.	2011	5
2.	2012	1
3.	2013	6
4.	2014	4
5.	2015	1

45. List the teaching methods adopted by the faculty for different programmes.
 Innovative teaching practices are followed namely,
- Theoretical concepts are explained through power point presentations and videos – NTPL downloaded lecture series;
 - Interactions with eminent teaching/research experts are arranged periodically;
 - Lab visits are conducted to give practical exposure in various fields of physics;
 - Continuous quality assessment are given to students to get knowledge on subjects outside the syllabus; and
 - Seminars and mini projects are given to the students to improve their inquisitive nature so that they acquire more knowledge leading to cutting edge research innovations.
46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?
- The question has application oriented questions to test the understanding level of the student;
 - Viva voce examination is being conducted during every practical session to ensure the understanding of theoretical concepts of the individual experiments;
 - NET/GATE/SLET exam coaching are given to the students to prepare and face the competitive examinations; and
 - Students are encouraged to attend technical events/workshops/seminars to get trained in various fields of Physics.
47. Highlight the participation of students and faculty in extension activities.
 All the students and faculty are actively involved in the following extension activities

Extension Activities	Faculty involved	Responsibilities
Astronomy club	Dr.Suganthi Devadason	Club Coordinator
	Dr. M. Senthilkumar	
	Mrs. Merita Anto Britto	Programme Officer
	Dr.Edwin Jayaraj	Programme Officer
NSS	Dr.T.Solomon Raju	Programme Officer
	Dr.A.Abiram	Programme Officer
Science & faith Club	Dr.A.Sakunthala	Programme Officer
	Dr.D.Khanna	Programme Officer
YRC	Dr.M.Senthil kumar	Programme Officer
Nature club	Dr.B.Vidhya	Coordinator
	Dr.M.Senthil kumar	Programme Officer

48. Give details of “beyond syllabus scholarly activities” of the department.
- Physics Scientific Tempo (PST) is being conducted by students every week with quiz, short videos and short lectures on advanced topics in physics;
 - Students get involved in arrangement of Weekly Seminars;
 - Association activities; and Industrial visits
 - “Supernova” association of physics department organizes invited talks, special lectures and students’ seminar etc.

Sl. No	Places of Visit by Physics Department Faculty and Students	Date	Purpose/No of Participants
1	ARCI, Hyderabad	February 2012	Technical visit / 30
2	Crystal Growth Centre, Anna University, Chennai	February 2012	Technical visit / 25
3	G.D Naidu Museum, Coimbatore	March 2013	Technical visit/15
4	PSG College of Technology , and Coimbatore Institute of Technology, Coimbatore	April 2013	Technical Visit /6
5	National Centre for Nanosciences and Technology, Mumbai University, Mumbai	01.09.13 to 05.09.2013	Technical visit / 30
6	Nehru Science centre, Mumbai	01.09.13 to 05.09.2013	Technical visit / 30

49. State whether the programme / department is accredited / graded by other agencies? If yes, give details.

No separate accreditation/grading for the department.

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied. Original research work has been carried out by the department, both basic and applied and outcome of research is published in peer reviewed national and international journals

51. Detail five major strengths, weaknesses, opportunities and challenges (SWOC) of the department.

Strengths
<ol style="list-style-type: none"> Highly qualified faculty members with PhD Faculty members with post doctoral research experience with various research specialization Diversified research fields like Nanomaterial, Thin Films, Nano Fluids, Crystal Growth, Theoretical Physics, Radiation Physics, Solid State Physics Infrastructure with centralized characterization facilities like XRD, SEM, Photoluminescence and etc. Well equipped research labs with advanced instrument like vacuum coating, microwave measurements, viscosity measurements, thermal conductivity measurements.
Weakness
<ol style="list-style-type: none"> Department is taking efforts to admit more number of GATE, CSIR NET qualified students into the PG programmes Initiatives from research collaborations and publications are to be focused more leading to product development and patent filings. Imparting new strategies to promote the departmental activities for wide reach and for the growth through alumni and other platforms.
Opportunities
<ol style="list-style-type: none"> Center of excellence in the field of thin films, crystal growth and theoretical physics can be established Collaborative research with leading premier institutions More number of PG and research students and faculty will be promoted to exchange programmes with foreign universities Possible MoU's with leading industries and research organization to be carried out for the benefit of the students and faculty Interdisciplinary research with other engineering and science departments to be carried out as part of the research development of the department.

Challenges

1. PG students to pursue higher studies further to find job opportunities in the areas related research and development for employment
2. To carryout innovative research and product development leading to patents
3. Graduates competent to match the industrial and societal demands
4. Certificate programmes in the specialized areas of the department will generate more number of consultancies and popularity of the courses in the department.
5. Interactions and partnership from the industry with the department to ignite new ideas for research and development and employability.

52. Future plans of the department.

1. Establishing Center of excellence for thin film technology lab
2. Memorandum of understanding with leading institutions and foreign universities
3. Interdisciplinary research leading to patents and product development
4. Starting M.Sc. Medical Physics Programme.

