

Brief History of the Department:

The Department of Physics in Hindi Mahavidyalaya, Vidyanagar, Hyderabad established in the year 2016 with the combination of B.Sc(MPCs) and in the year 2019 with the combination of B.Sc(MPC) at UG level keeping in view the need for strengthening its Physical Sciences Wing and growing competition in the IT and Science fields.

Objectives:

- To inculcate the habit of independent thinking and problem solving.
- To prepare the students reach out look for various fields
- Identify and focus the students to the current issues and challenges in the field of Physics.
- To train the students in such a way that the knowledge acquired can be practically implemented for solving various problems encountered in the personal as-well-as professional life.

Outcomes:

Program outcome:

Acquired the skills in handling scientific instruments planning and performing in laboratory experiments

- ❖ The skills of observations and drawing logical inferences from the scientific experiments.
- ❖ Analyzed the given scientific data critically and systematically and the ability to draw the objective conclusions
- ❖ Been able to think creatively to propose novel ideas in explaining facts and figures or Providing new solutions to the problem
- ❖ Realized how interdisciplinary approach helps in providing better solutions and new ideas for the sustainable developments



Course outcome:

- ❖ Make use of linear equations for solving any differential equations
- ❖ Understand the concepts of Matrices and Linear Equation
- ❖ Understand the concepts of abstract algebra and their applications
- ❖ Understand the concept of Real Analysis, Complex Analysis and their applications.

Courses Offered :

Under Graduate Level: B.Sc. (MPC, MPCS)

Present Faculty:

Name	Qualification	Designation	Specialization	No. of Years of Experience
Dr. B. Sreedevi	M.Sc.(Physics),Ph.D	Associate Professor, Vice principal	Electronics(M.Sc), Liquid Crystals(Ph.D)	39
M. Shivaleela	M.Sc.(Physics)	Assistant Professor	Electronics and Instrumentation	1
Soma keerthi	M.Sc.(Physics)	Assistant professor	Electronics and Instrumentation	1

Student Profile:

Category wise Student Strength

B.Sc. Physics Student Strength (2017-18 to 2021-22)

Category	2017 - 18			2018 - 19			2019 - 20			2020 - 21			2021 - 22		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total



SC	04	0	04	01	0	01	02	0	02	02	02	04	05	01	06
ST	0	0	0	01	0	01	01	0	01	01	0	01	03	0	03
BC	18	03	21	16	03	19	25	03	28	09	01	10	16	03	19
GENERAL	01	0	01	04	02	06	05	03	08	05	01	06	04	01	05
MINORITY	0	0	0	01	0	01	0	0	0	0	0	0	0	0	0
TOTAL	23	03	26	23	05	28	33	06	39	17	04	21	28	05	33

BSC PHYSICS I YEAR 2017- 18

Group	SC				ST				BC				Minority				Gen			
	M	F	M%	F%	M	F	M%	F%	M	F	M%	F%	M	F	M%	F%	M	F	M%	F%
MPCS	04	0	17.3	0	0	0	0	0	18	03	78	100	0	0	0	0	01	0	4.3	0

BSC PHYSICS I YEAR 2018- 19

Group	SC				ST				BC				Minority				Gen			
	M	F	M%	F%	M	F	M%	F%	M	F	M%	F%	M	F	M%	F%	M	F	M%	F%
MPCS	01	0	4.3	0	01	0	4.3	0	16	03	69.5	60	01	0	4.3	0	04	02	17.3	40



BSC PHYSICS I YEAR 2019- 20

Group	SC				ST				BC				Minority				Gen			
	M	F	M%	F%	M	F	M%	F%	M	F	M%	F%	M	F	M%	F%	M	F	M%	F%
MPC	0	0	0	0	3	0	17.6	0	12	0	70.5	0	0	0	0	0	2	0	11.7	0
MPCS	2	0	5.26	0	1	0	2.63	0	25	3	65.7	7.89	0	0	0	0	4	3	10.5	7.89

BSC PHYSICS I YEAR 2020- 21

Group	SC				ST				BC				Minority				Gen			
	M	F	M%	F%	M	F	M%	F%	M	F	M%	F%	M	F	M%	F%	M	F	M%	F%
MPC	1	0	14.2	0	0	0	0	0	3	2	42.85	28.57	0	0	0	0	1	0	14.2	0
MPCS	2	2	10	10	1	0	5	0	8	1	40	5	0	0	0	0	5	1	25	5

BSC PHYSICS I YEAR 2021- 22

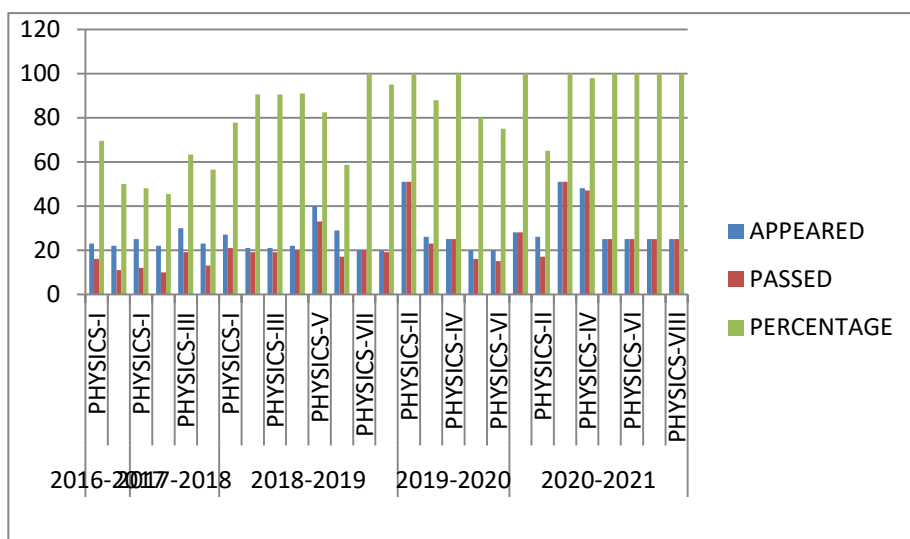
Group	SC				ST				BC				Minority				Gen			
	M	F	M%	F%	M	F	M%	F%	M	F	M%	F%	M	F	M%	F%	M	F	M%	F%
MPC	2	1	16.66	8.33	1	0	8.33	0	4	0	33.33	0	0	0	0	0	4	0	33.3	0
MPCS	5	1	15.15	3.03	3	0	9.09	0	17	2	51.51	6.06	0	0	0	0	4	1	12.1	3.03



B.SC.PHYSICS RESULT ANALYSIS 2017 –2018 TO 2021 – 2022

Papers	Paper I			Paper II			Paper III			Paper IV			Paper V			Paper VI			Paper VII			Paper VIII		
	Appeared	Passed	Percentage	Appeared	Passed	Percentage	Appeared	Passed	Percentage	Appeared	Passed	Percentage	Appeared	Passed	Percentage	Appeared	Passed	Percentage	Appeared	Passed	Percentage	Appeared	Passed	Percentage
2016-17	23	16	69.57	22	11	50																		
2017-18	25	12	48	22	10	45.45	30	19	63.33	23	13	56.52												
2018-19	27	21	77.78	21	19	90.48	21	19	90.48	22	20	90.91	40	33	82.5	29	17	58.62	20	20	100	20	19	95
2019-20				51	51	100	26	23	88	25	25	100	20	16	80	20	15	75						
2020-21	28	28	100	26	17	65	51	51	100	48	47	98	25	25	100	25	25	100	25	25	100	25	25	100
2021-22																								

B.SC.PHYSICS RESULT ANALYSIS



CURRICULAR ASPECTS:

- ❖ In order to student abilities of the area of National Level Examinations like IIT (JAM), HCU, CU CET etc, our department has made an attempt to bring in changes in the curriculum by choosing the elective in semester V and VI.
- ❖ In order to expose the student to practical Knowledge & Project Work is included in the curriculum.

Curriculum Enrichment Program:

To enrich the curriculum, the department has taken the following initiatives

- Guest / Extension Lectures are arranged by the experts in various fields so that the students enrich their knowledge in the concerned subject.
- To focus the students on various topics project works are given.
- Training in soft skills, Analytical skills through Job Oriented Programmes are given to the students with an objective of inculcating human values and ethics, students are taught “Value Education and Professional Ethics” apart from their regular subjects.



DEPARTMENTAL ACTIVITIES
From the Academic Year 2017 – 18 TO 2021 -22

S.No.	Date	Name of the Activity	Title of the Activity	Details of the Resource Person (Name, Designation etc.)	No. of students Participated
1	30/01/2019 & 31/01/2019	National seminar	Role of science, Technology and Innovation in sustainable development of India	Hindi Mahavidyalaya	300-500
2	02/05/2022	Farewell Party	Farewell Party For Final Years	Hindi Mahavidyalaya	150-300
3	03/08/2022	“Motivational speech” By Appala Prasad Ji on the eve of 75 years of independence	Azadi Ka Amrit Mahotsav	Hindi Mahavidyalaya	200-300
4	26/07/2022	Guest Lecture By Dr. P. Sakuntala (HOD) RBVRR Women’s Clg	NANO SCIENCE	Hindi Mahavidyalaya	50-100
5	23/03/2020	Guest Lecture By Dr. Sarala (HOD) St. Ann’s Clg	Modern Physics	Hindi Mahavidyalaya	50-70



Departmental Activity Photos

Two day national seminar on
**ROLE OF SCIENCE, TECHNOLOGY AND
 INNOVATION IN SUSTAINABLE
 DEVELOPMENT OF INDIA**
 Distinguished Guest : Dr. Y. Manohar
 Chief Guest : Prof. Ch. Gopal Reddy
 Keynote Speaker : Dr. Ch. Mohan Rao









**Guest Lecture on Nano Science
By Dr. P. sakuntala(HOD),
Department of Physics
RBVR Reddy women's college
Narayanaguda, Hyderabad**



Hindi Mahavidyalaya
(Autonomous & NAAC-RE Accredited)
Arts, Commerce, Science & P.G.Centre
Affiliated to Osmania University
Nallakunta, Hyderabad - 500044



**DEPARTMENT OF PHYSICS ORGANIZES
A GUEST LECTURE ON
NANO SCIENCE**



Speaker: Dr. P. Sakuntala
R. B. V. R. Reddy Women's College.
Narayanaguda, Hyderabad

Dr. Avinash Jaiswal
Principal

Dr. Sridevi
Vice-Principal

Mrs. S. Ashwini
Vice-Principal

Conveners:
M. Shivaleela
Soma Keerthi

Date: 26 July 2022
Timings: 2:30 on Onwards
Venue: Seminar Hall
Hindi Mahavidyalaya





TEACHING – LEARNING PROCESS:

- ❖ In the beginning of the Academic year the department plans and organizes Teaching-Learning and Evaluation Plan of the Academic year.
- ❖ As part of the teaching-learning process the department has adopted the following Student Centric activities in addition to Lecture method to improve the student learning.

RESEARCH ACTIVITIES BY THE FACULTY:

The department has experienced and Qualified Faculty.

- Research articles published by the Faculty Members

Dr. B. Sreedevi

S.No.	Title of the Article	Name of the Journal	Bibliographic information Year of Publication
1	Influence of Hyd Bonding on phase abundance in FLCs	Liquid crystals (Taylor & Francis Group)	ISSN NO – 0267-8292 YEAR - 2004
2	Tilt angle spontaneous polarization & LF dielectric relaxation investigations in N*&C* phases of HBFLC-11BPA	Ferro electrics (Taylor & Francis Group)	ISSN NO – 0015-0193 YEAR - 2007
3	Influence of hydrogen bonding on device parameters & field response in N*&C* phases of HBFLC-12bpa	Molecular crystals liquid crystals (Taylor & Francis Group)	ISSN NO – 1542-1406 YEAR - 2009
4	Inductive effect for phase stability in HBFLC X-(p/m) BA : 90BA _s	Liquid crystals (Taylor & Francis Group)	ISSN NO - 0267-8292 YEAR - 2013



Refresher Courses Attended:**By Dr. Sreedevi**

S.No	Name	Place	Month/Year
1	Refresher Course (Physics)	Lucknow University ASC	March/1999
2	Refresher Course (Physics)	Osmania University ASC. HYD	May/1999
3	Orientation Course (General)	Osmania University ASC. HYD	Oct/1999
4	Refresher Course (Physics)	Osmania University ASC. HYD	July/2000
5	M.S. Office (Comp.Course)	INS. Of Tech & Management (ITM) HYD	Dec-Feb/2001



Seminars/ Workshops/Conference /Symposium/ Webinars attended bythe faculty

Dr. B. Sreedevi

S.no	Name of the Seminar /Conference /Symposia/Workshop/ Webinars	Name of the Sponsoring agency	Place and Date
1	Conference on condensed matter physics	Andhra Layola College	Vijayawada Nov/2007
2	Molecular Eng of New Materials	Andhra Layola College	Vijayawada Feb/2009
3	Education Policy Proposed Reforms	Hindi Mahavidyalaya	Hyderabad Feb/2010
4	Mathematical modelling in Eng & Tech.	Stanley College of Eng & Tech.	Hyderabad Feb/2010
5	Physics for Engineers	Stanley College of Eng & Tech.	Hyderabad Sept/2010
6	Applications of Renewable & Sustainable Energy for Industry& society	Osmania University Dept. of Physics	Hyderabad Dec/2010
7	Recent Advantages in Physics	PR College	Kakinada Jan/2011
8	Innovations & Developments in Macro, Micro & Nano Material sciences	Indira Priyadarshini GDC	Hyderabad Nov/2018
9	Advanced material Characterisation Techniques (National/Attended)	Osmania University Dept. of Physics.	Hyderabad Aug/2018
10	Experimental physics (Local/Attended)	Bhavan's Vivekananda College of sciences, Humanities & Commerce	Hyderabad March/2019
11	Sustainable Development In Science Tech & Innovation (National/Conducted)	Hindi Mahavidyalaya	Hyderabad Jan/2019
12	National science Day Celebrations By Break Through Society (Local/Conducted)	Hindi Mahavidyalaya	Hyderabad Feb/2020
13	Modern Physics By Dr. Sarala HOD Dept. Of Physics St. Ann's College (Local/Conducted)	Hindi Mahavidyalaya	Hyderabad March/2020
14	Two day FDP	Hindi Mahavidyalaya	Hyderabad Nov/2022



M. Shivaleela

S.no	Name of the Seminar /Conference /Symposia/Workshop/ Webinars	Name of the Sponsoring agency	Place and Date
1	International Conference	St. pious X Degree & Pg college	Nacharam 6 th & 7 th December, 2019
2	Lecture series by prof. D. Ravinder, BOS, OU followed by PPT competition on Nano technology - synthesis	St. pious X Degree & Pg college	Nacharam 11 th December, 2019
3	Pantech – e learning on Aurdino workshop	St. pious X Degree & Pg college	Nacharam, 21 st May, 2021
4	Two day Faculty Development Program	Hindi Mahavidyalaya	Nallakunta, 29 th & 30 th July, 2022

Soma Keerthi

S.no	Name of the Seminar /Conference /Symposia/Workshop/ Webinars	Name of the Sponsoring agency	Place and Date
1	International Conference	St. pious X Degree & Pg college	Nacharam 6 th & 7 th December, 2019
2	Lecture series by prof. D. Ravinder, BOS, OU followed by PPT competition on Nano technology - synthesis	St. pious X Degree & Pg college	Nacharam 11 th December, 2019
3	Two day Faculty Development Program	Hindi Mahavidyalaya	Nallakunta, 29 th & 30 th July, 2022



STUDENT CENTRIC ACTIVITIES

- ❖ Student seminars and Assignments
- ❖ Student projects
- ❖ ICT Based Teaching like PPT's and MANA TV lectures
- ❖ Study tours
- ❖ Group discussion

EVALUATION PROCESS:

Continuous evaluation of the students is done by

- ❖ Assignments
- ❖ Internal Assessments
- ❖ Conducting Students Seminars
- ❖ Semester Examinations
- ❖ Academic Audit

STUDENT SUPPORT AND PROGRESSION: –

- ❖ Majority of the students are covered under scholarship scheme by the state government.
- ❖ The students are provided with sets of previous year's question papers
- ❖ Our alumni members are working in different organizations in various positions and some are engaged in the self employment.
- ❖ Students are given Library books for all the subjects, which aids in their learning process.
- ❖ Students are provided with access to N-List facility
- ❖ Providing study material to the students.
- ❖ Live telecast of lectures in various subjects is facilitated to the students through TSAT.
- ❖ Soft skills, Communication skills, Analytical skills through TSKC
- ❖ Concessional bus pass and train pass facility



INNOVATIONS AND BEST PRACTICES:

FUTURE PLAN OF THE DEPARTMENT

- ❖ To organize a National level seminar.
- ❖ To apply for Minor Research Project.
- ❖ To organize more number of Guest lectures.
- ❖ Invite eminent scientists and industry experts for guest lectures.
- ❖ Field trip.
- ❖ PG entrance coaching.
- ❖ Coaching for Civil and TSPSC examinations.

