

BRIEF-PROFILE OF THE DEPARTMENT

ESTD: 1970

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PROFILE OF THE DEPARTMENT

The Department is functioning fruitfully since

1. Year of Establishment : Mathematics - 1970
2. Mathematics is taught as one of the three subjects of equal importance from 1990,
Physics , Chemistry and Mathematics (PCM).
- 3.The subject is taught under semester scheme from the year 2005
- 4.The subject is taught under CBCS Syllabus scheme from the year 2020-21 and Department introduced the New Combination .
Physics, Mathematics and Computer Science (P M Cs) in the same academic year
- 5.NEP-2020 introduced from the year 2021-22

Curriculum Planning and Implementation

• Calendar of events	At the beginning of academic year
• Syllabus Distribution	At the beginning of each semester.
• Teaching Plans and time table	
• Bridge Course	Establish the link and to have the subject continuity
• Work Dairy and attendance	Every working Day
• Feed back on Curriculum	At the end of academic year by students and teachers

Program Outcomes

- **Disciplinary Knowledge** : In-depth knowledge of pure and applied Mathematics.
- **Problem Solving Skills**: Program enhances students overall development with problem solving skills.
- **Information/Digital Literacy**: Enable the learner to use appropriate software's to solve different concepts in Mathematics.
- **Self-directed and Lifelong Learning**: Student is able to work independently.
- **Research Related Skills**: Students develop the knowledge of recent development of Mathematics in different areas.
- **Perusing for Higher Studies**: Ability to peruse advanced studies and research in Pure and Applied Mathematical Sciences.

Course Outcome

Outcome 1: Students will solve nonlinear equations using analytic methods.

Outcome 2: Students will use mathematics concepts in real world situations.

Outcome 3: Students will simplify and perform operations with nonlinear expressions.

Outcome 1: Students will use proportions to solve basic problems in radiology.

Outcome 2: Students will convert between metric and English system units.

Outcome 3: Students will apply basic algebra and geometry to problems in radiological science.

Outcome 1: Students will be able to utilize appropriate theory and computational techniques to construct Taylor series with its interval of convergence for use in a variety of applications such as approximating values of a function, creating series for new functions, and studying the behavior of a function.

Outcome 1: Students will demonstrate the ability to formulate models of natural phenomena using differential equations.

Outcome 2: Students will demonstrate the ability to solve a variety of differential equations analytically and numerically.

Outcome 3: Students will demonstrate the ability to interpret a differential equation qualitatively.

POs, PSO's & COs

Communication

- College Website
- Discussing in the Class
- Displaying on Notice Board
- Display Boards

Programs to Attain POs and COs

- Organizing Conferences/
Workshops/Seminars
- Guest Lectures
- Projects

Measuring of Attainments

Bloom Taxonomy

- Direct Method
- University End Examination
- Indirect Method
- Progression
- Placements

TEACHING AND LEARNING METHODS

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graph TD; A[TEACHING AND LEARNING METHODS] --> B[ICT BASED]; A --> C[TRADITIONAL METHOD]; B --> D["PPT, Animations and Videos"]; D --> E[E-Learning]; C --> F[CHALK AND TALK]; F --> G[CHARTS AND MODELS]; G --> H[Topper as a Teacher]
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ICT BASED

PPT, Animations and Videos

E-Learning

TRADITIONAL METHOD

CHALK AND TALK

CHARTS AND MODELS

Topper as a Teacher

ICT Based Tools and Technologies

Tools and Technologies	E-Resources
PPT	pdf. Notes will be uploaded on Whats Group and Telegram ,Class room which are created by the Department .
Zoom app	
Google Classroom	
Google meet	
Teach-mint	

Faculty Profile

Sl.No	Name of the faculty	Qualification	Designation	Teaching Experience
01	Sri.M.M.Holliyavar.	M.Sc. M.Phil (Ph.D)	Assistant Professor	24 years
02	Sri. Devendrappa R.	M.Sc., M.Phil.	Assistant Professor	30 Years
03	Sri . Vinayak Patil.	M.Sc., B.Ed	Assistant Professor	05Years
04	Miss. Anuja Patil	M.Sc	Assistant Professor	01 Year

Evaluation Methods

- **Internal Tests** 1. Each Semester Two IA Tests will be conducted
2. After the Evaluation the papers will be shown and display the marks on the Department Notice Board
- Assignments
- Seminars, GD, Projects
- Notifying Attendance Report and Final Marks List.
- Feedback on Teachers by Students



Students' Strength

YEAR	B.Sc-I			B.Sc-II			B.Sc-III		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
2016-17	35	45	80	39	36	75	34	29	64
2017-18	33	49	82	23	39	62	28	38	66
2018-19	41	50	91	32	48	80	19	38	57
2019-20	45	51	96	32	48	80	27	39	66
2020-21	35	56	91	48	40	88	27	48	75
2021-22	34	34	68	39	36	75	34	29	64

Results - B. Sc.

Year	Paper	Distinctions	First Class	II Class	Pass Class	Total Passed	Fail	Students Appeared	%
2016-17	M-I	15	04	17	12	48	15	63	76.19
	M-II	08	07	11	20	46	17	63	73.02
	M-III	15	16	13	17	61	02	63	96.83
2017-18	M-I	12	11	09	09	41	22	63	65.07
	M-II	21	13	12	11	57	06	63	90.47
	M-III	21	13	14	08	56	07	63	88.88
2018-19	M-I	20	04	17	05	46	10	56	82.14
	M-II	17	14	14	10	55	01	56	98.21
	M-III	32	15	05	04	56	00	56	100

Results - B. Sc.

Year	Paper	Distinctions	First Class	II Class	Pass Class	Total Passed	Fail	Students Appeared	%
2019-20	M-I	20	17	10	09	56	07	63	88.89
	M-II	21	17	17	06	61	02	63	96.83
	M-III	22	20	14	03	59	04	63	93.65
2020-21	M-I	20	14	28	01	63	11	74	85.14
	M-II	19	15	31	02	67	07	74	90.54
	M-III	18	20	20	03	61	13	74	82.43

Student Centric Methods

Year	In house Seminars	Projects All final Degree students are bound for in house project under guidance of faculty members
2020-21	24	05
2019-20	26	03
2018-19	27	03
2017-18	28	04
2016-17	13	03
Total	118	18

Academic Excellence

University Rank Holder in B.Sc.

S. No.	Name	Year	Rank	%
1.	Miss .Soumya Shivananda Koppad	2018-19	9 th	94.37

OUR PRIDE



Academic Excellence : Centum Scorers

← 2016-17 →

← 2017-18 →



Shilpa Gunjiganvi

I Sem, Paper -I



Gajanan Madar

III Sem, Paper -I & II



Akshita Kavatekar

IV Sem, Paper -I



Priyanka

IV Sem, Paper -I



Gajana Madar

VI Sem, Paper -I

← 2018-19 →



Vidyshree Patil

IV Sem, Paper -I



Somya Koppad

IV Sem, Paper -II



Amruta Patil

VI Sem, Paper -III



Shilpa Gunjiganvi

VI Sem, Paper -III

Academic Excellence : Centum Scorers

← 2020-21 →

← 2019-20 →



Archana Pujari
B.Sc I Sem,
Paper -II



Shweta Hirappagol
B.Sc III
Sem, Paper -I



Amruta Athani
B.Sc VI sem Paper-III



Samreen Patait
B.Sc VI sem Paper-III

Student progression

Percentage against enrolled

UG to PG /Higher Studies

32%

Faculty and Student Research Activities

1. Shri.M.M.Holliyavar pursuing (Part Time) Vocational Ph.D. at Bharathiar University, Coimbatore, Tamilnadu.
2. Publications and Presentations

Publications	No.
Int. National Journals with ISSN	04
National Proceedings with ISSN	02
Presentations/Participation	No.
Papers Presented at Int. National Conferences	02
Papers Presented at National Conferences	05
Seminars/Conferences/ Workshops Attended	07
Refresher Course attended by the Members of the Department.	02
Students Participation /Presentations	No.
National Seminars/Conferences Attended	10
State Level Seminars /Workshop Attended	03

Department Activities

S. No.	Activities	Numbers
1.	Certificate Courses	03
2.	National Level Webinar	03
3.	National Level on line Essay Competition	01
4.	Workshops	02
5.	Guest Lectures	02
6.	Mathematics Day Celebrations	Yearly
7.	Extension Activities	4
Total		15

1. Certificate Course

Title	1. Vedic Mathematics and its Applications (2019-20) 2. Reasoning and Quantitative Aptitude (2020-21) 3. Vedic Mathematics and its Applications (2021-22)		
Focus on Employability	<ul style="list-style-type: none"> • Tricks to solve aptitude questions • Prepare the students to face competitive exams, campus selection etc. 		
Skill development	Analytical skill		
No. of students enrolled	2019-20	2020-21	2021-22
	30	30	42
Date of introduction and duration	13.01.2020 (30 hrs)	08.01.2021 (30 hrs)	03.06.2022 (30 hrs) (On going)
Evaluation Method	Examination at the end of course		
Outcome of course	Placements in Banking Sector, MNCs, Navy, Air force and Army NDA selection		

Certificates are issued to all the successful candidates

2.National Level Webinar

S. No.	Activity	Date	No. of Participants
1.	National Level webinar on “ Effective Teaching in Mathematics”	17.06.2020	147
2.	National Level webinar on “Advances and Applications in Discrete Mathematics”	17.07.2020	187

3.National Level on line Essay Competition

3.	National Level Online Essay Competition on “COVID-19: Issues & Challenges”	15.04.2020 to 06.05.2020	187
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4. Workshops

S. No.	Activity	Date	No. of Participants
4.	One day online workshop on “preparation of JAM Exam-2021 for B.Sc Final Year Students	30.08.2020	34
5.	One day online workshop on “preparation of JAM Exam-2021 for B.Sc Final Year Students	09.06.2021	265

5. Guest Lectures

6.	Special Guest Lecture for B.Sc Final Year Students on “Series Solutions for Ordinary Differential Equations”	11.03.2020	65
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6. Mathematics Days Celebration

S. No.	Activity	Date	No. of Participants
7.	National Level Mathematics Day on eve of Ramanujan s' Birth anniversary	22.12.2020	103
8.	National Level Mathematics Day on eve of Ramanujan s' Birth anniversary	22.12.2021	140

7.Extension Activities

Our UG, students and Teachers visited high schools and demonstrated Mathematical Concepts to students through models, animations and charts.

Sl. No	School / College	Topics demonstrated	Date	Students participated (Beneficiaries)
1	Shri Kada Siddeshwar High School Gundewadi , Tq: Athani	“Importance of basic Mathematics”	01.03.2021	37 (9 th & 10 th Students)
2	Government High School. Saptasagar, Tq : Athani	“Importance of basic Mathematics”	30.08.2021	50 (9 th & 10 th Students)
3	Morarji Residential School. Po: Madabhavi, Tq : Athani	“Significance of Mathematics”	07.09.2021	55 (9 th & 10 th Students)

Learning Resources

Infrastructure Facilities

Total PCs in the Department Laboratory with internet	30
Laptop	01
Printer	01
Internet facility	For all Staff members & Students

Department Library

Books	:	78
Number of titles	:	16
E-Journals	:	INFLIBNET/N-LIST

Best Practice –

Two best practices successfully implemented by the Department

I. Developing the Confidence

1. Every year the department celebrates National Mathematics day on eve of Srinivasa Ramanujan's birthday (December 22 nd)
2. The celebration aims at making awareness about his work /Contributions.
3. In a way it motivates the students to think and analyze in any situation.
4. Thus it turns out to be a best practice of the department.
5. The students of the department arranged programme on National Mathematics Day and Students will be the **speakers** on his life history and his number work.
6. Students from various streams participated virtually and were benefitted.
7. The department students proved their organizing ability, leadership quality while improving their knowledge.

II. GUIDANCE FOR COMPETITIVE EXAMS

Students are motivated to take up competitive examinations .we conduct Maths Aptitude/Reasoning Test to improve analytical skills of students.



K.L.E Society's
SHRI SHIVAYOGI MURUGHENDRA SWAMIJI
ARTS, SCIENCE & COMMERCE COLLEGE, ATHANI - 591304
(Reaccredited by NAAC at B⁺⁺ grade)



Internal Quality Assurance Cell
Initiatives

NATIONAL MATHEMATICS DAY CELEBRATION

Organized by
Department of Mathematics
On the eve of

"134th SRINIVASA RAMANUJAN'S BIRTHDAY"



Date: 22.12.2021

Time: 11.00 am

Venue : Auditorium

Remembering Srinivasa Ramanujan and the Spirit of Higher
Mathematics in our Curriculum

: Speakers :

1. Mr. Balavant Kamte B.Sc I Sem
2. Mr. Madhu Madannavar B.Sc I Sem
3. Miss. Pooja Bilur B.Sc III Sem

Guest of honor

- Miss. Sadiqua Jamalbhai B.Sc V Sem
- Mr. Rachappa Angadi , B.Sc V Sem
- Mr. Shivanand Jambagi B.Sc V Sem

President

Prof. S .L. Patil , Principal

All are Cordially Invited

Sri.Vinayak Patil

Smt.Sanjota Janaj,

Miss. Anuja Patil,

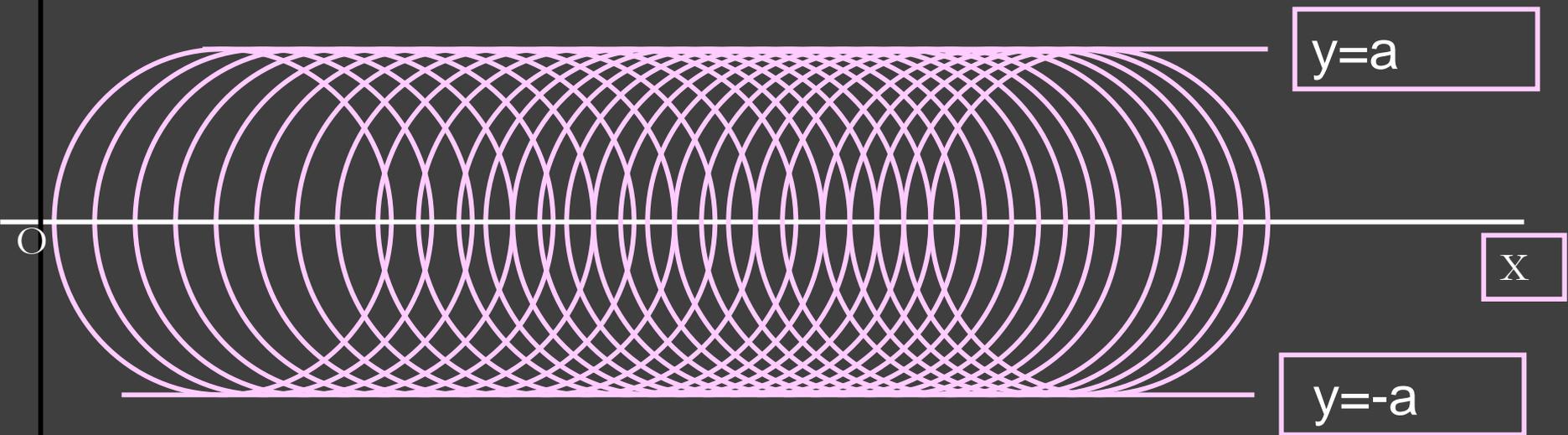
Prof. M.M.Holliyavar,
Convener

Prof U.G.Patagar
IQAC Coordinator

Prof. Devendrappa R.
Head Dept of Mathematics

PHOTO GALLERY

Animated Teaching 'Envelope'



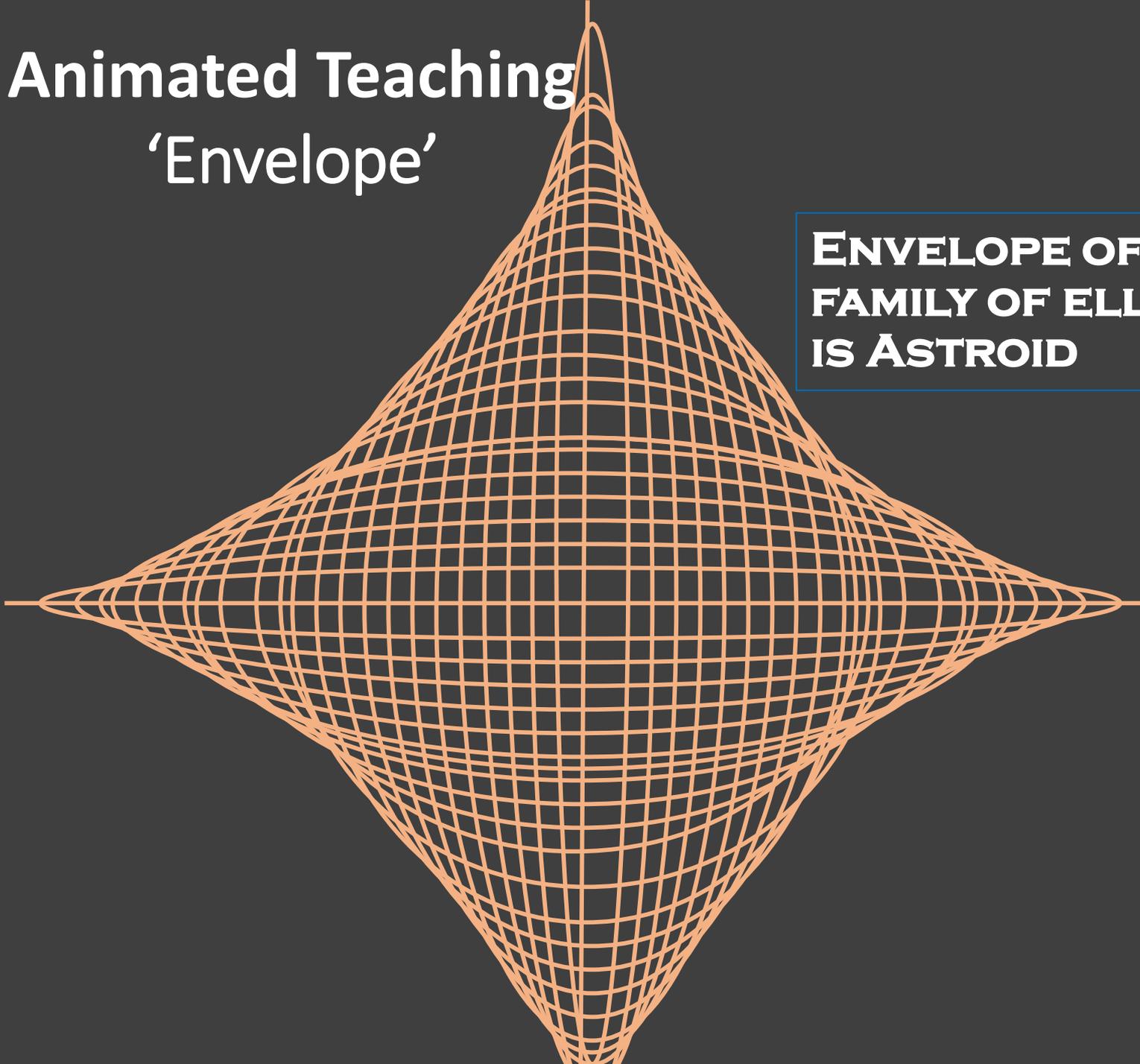
Envelope of family of
circles $(x-\alpha)^2 + y^2 = a^2$ is
a straight line $y = \pm a$

Y

Y1

Animated Teaching 'Envelope'

**ENVELOPE OF
FAMILY OF ELLIPSES
IS ASTROID**

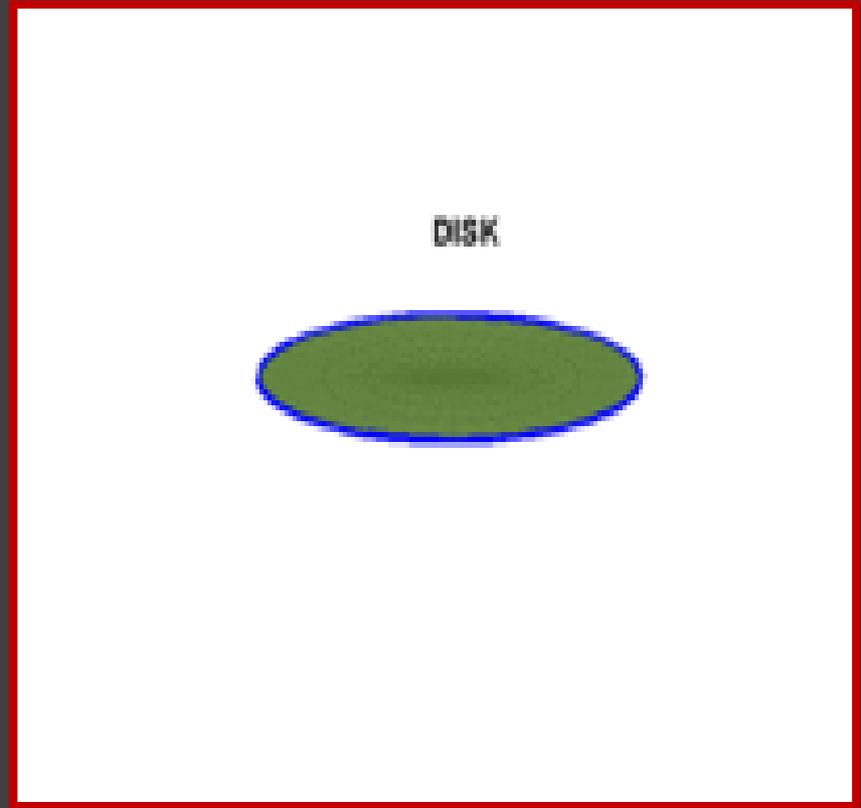


Topology

Homeomorphism



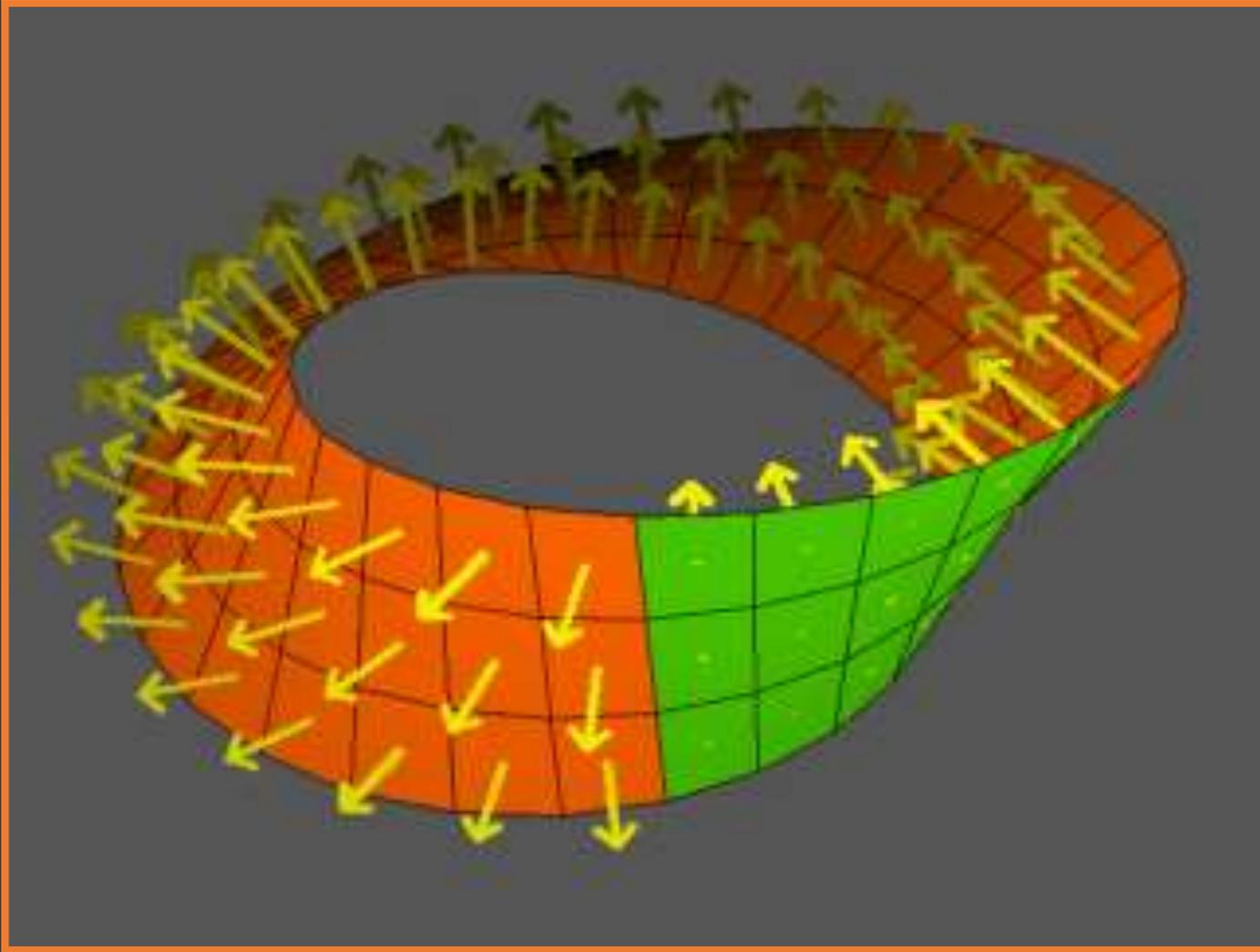
Quotient Space



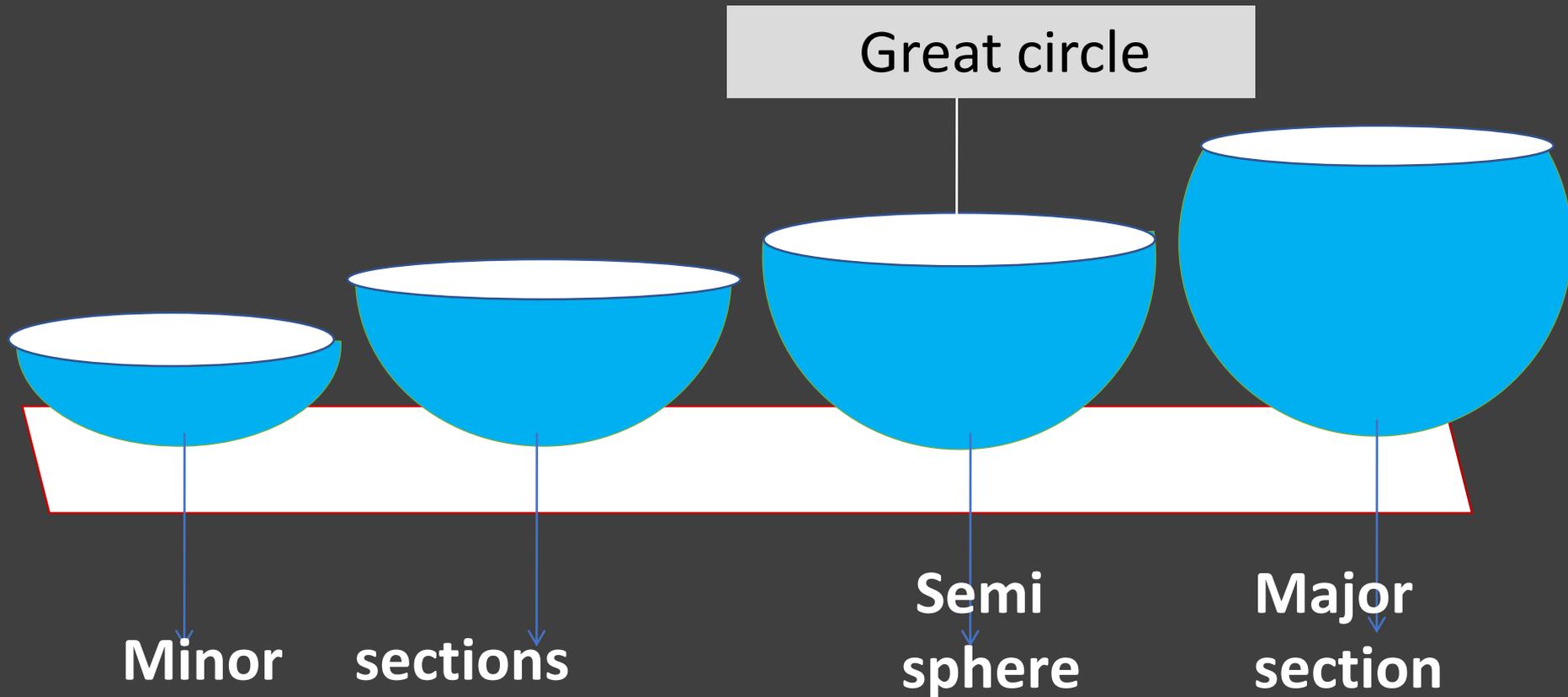
**Torus to Coffee Cup
& Vice Versa**

Disc to Sphere

Mobius Band



Different sections of the sphere

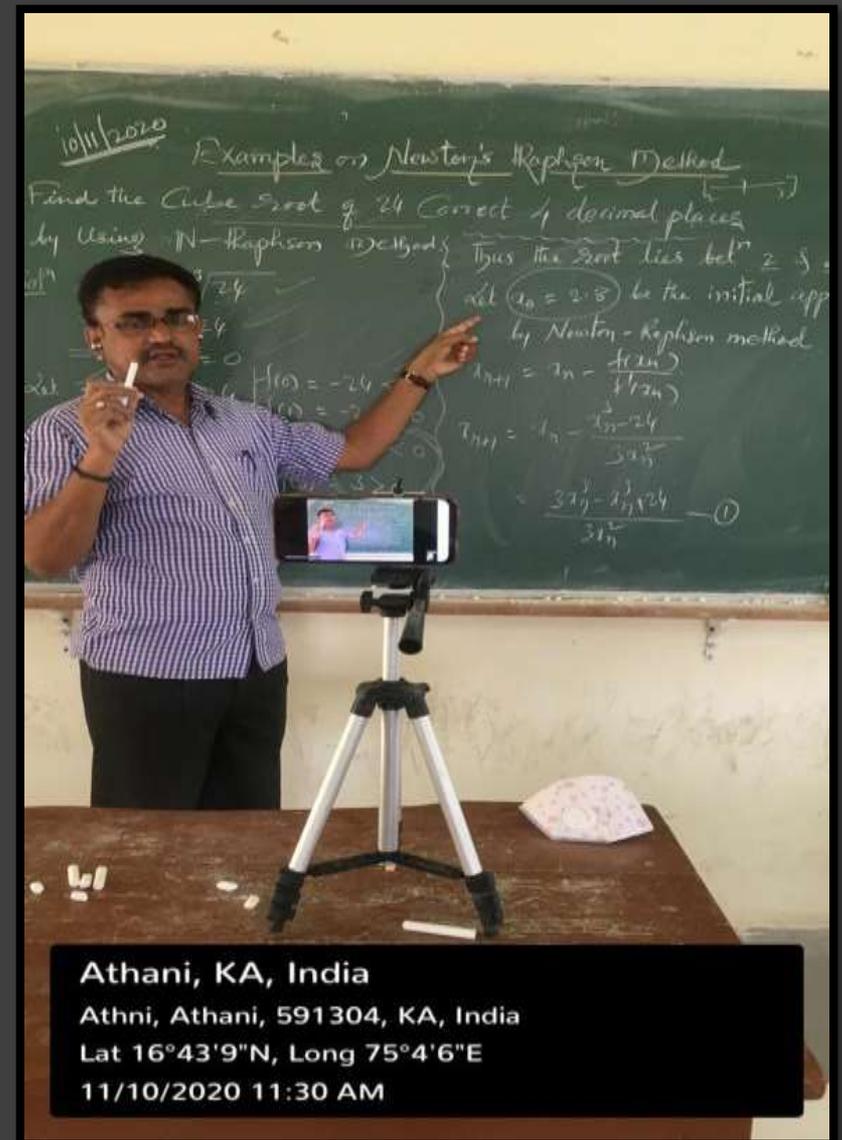


For all these sections , surface is circle.

ICT Based Teaching and Learning



ICT Based online Teaching and Learning



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Lecture 2021-06-28

Share

Windows taskbar: 5:38 PM 16/2/2021

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Teachmint

Lecture 2021-06-25

Share

Windows taskbar: 9:52 AM 7/24/2021

Taskbar icons: Report.pdf, Maths Online Ra...docs, letter head.docx, Show all

Students Participatory Learning In-House Seminar



Certificate course in Vedic Mathematics for B.Sc final Year Students, 2019-20



Address by the
Chief Guest
Prof. Ravi Bhajantri
Government Teacher's
B.Ed College, Belagavi



Inauguration of the Certificate
Course in Vedic Mathematics by
Chief Guest
Prof .Ravi Bhajantri,
Principal Dr.R.F.Inchal,
Sri.H.R.Chamakeri ,
Dr.Smt Siddagangamma ,
M.M.Holliyavar. Devendrappa
R. and Smt.Sanjota Janaj.





National Mathematics Day- 22nd December 2020



National Mathematics Day-22nd December 2021



Students are demonstrating about the Importance of Basic Mathematics



“SPECIAL LECTURE PROGRAMME”

On “Series Solutions for Ordinary Differential Equations”
For B.Sc. VI Semester Students

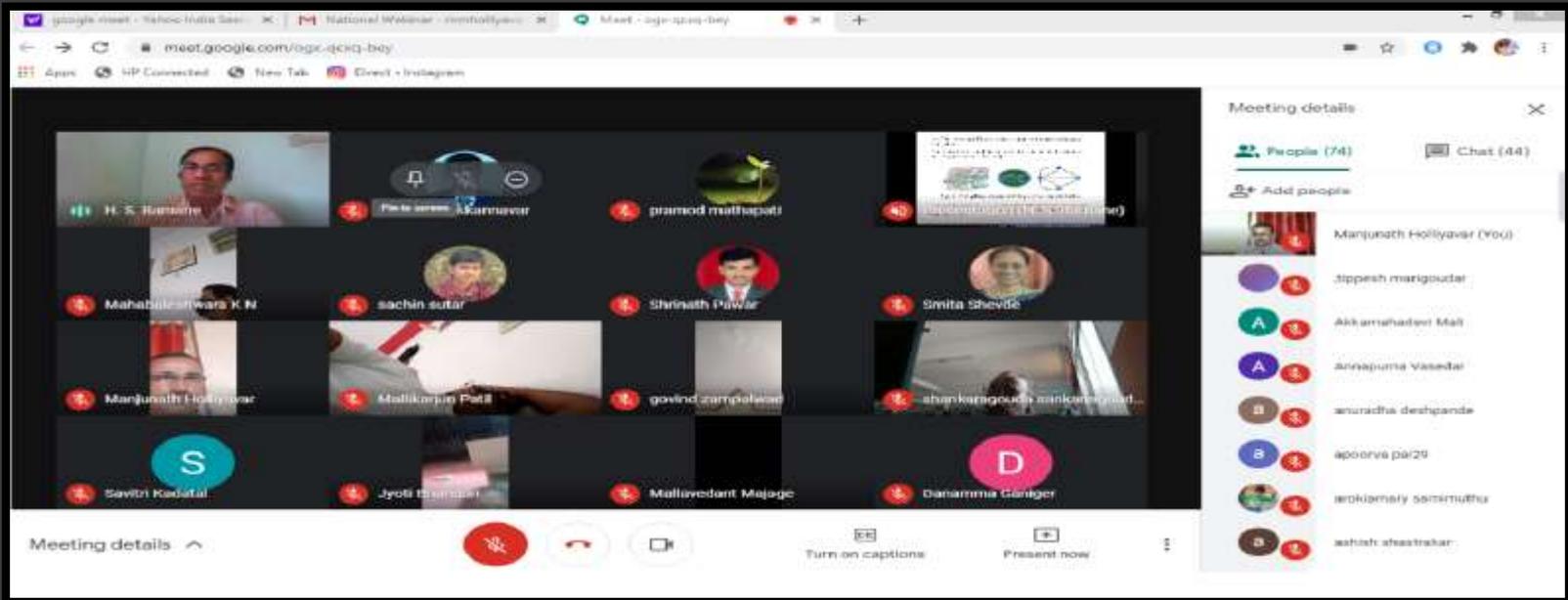


Addressing the Students by
the Principal Dr.R.F.Inchal

Special Talk on “Power Series”
by Dr.Lingaraj M. Angadi,
Assistant Professor Govt First
Grade College ,Chikodi.
Dist: Belagavi



One day online workshop on “Preparation of JAM-2021 Examinations in Mathematics”





FUTURE PLANS

- 1.To develop research based activities**
- 2.To conduct need based more certificate courses**
- 3.To conduct workshop on NEP-2020
for B.Sc-I / II / III year Students**
- 4.To conduct workshop on Mathematical Modeling**
- 5.To organize national /International level seminar**

$\lim_{\text{Work} \rightarrow \infty} (\text{Patience}) = \text{Success}$

THANK YOU

Limit of Patience as work tends to infinity
is success