



POORNIMA

COLLEGE OF ENGINEERING

Promoted by Shanti Education Society, Affiliated to Rajasthan Technical University & Approved by AICTE

A Report on 3-day Faculty Development Program (FDP) on “Latent Mathematics in Sanskrit Context”

Flyer



RTU (ATU) TEQIP-III sponsored
3 Days Faculty Development Programme
on
“Latent Mathematics in Sanskrit Context”
September 28-30, 2020



Rajasthan Technical University, Kota &
Department of Electronics & Communication Engineering, Poornima College of Engineering
Cordially invite you to Inaugural Session



Prof. R. A. Gupta
Chief Guest
Hon'ble Vice Chancellor
RTU Kota



Prof. Dharendra Mathur
Guest of Honour
TEQIP Coordinator
RTU Kota



Dr. Kamlesh Jangid
Event Coordinator
RTU, Kota



Dr. S.D. Purohit
Event Coordinator
RTU, Kota



Dr. Mahesh M. Bunde
Director & Principal, PCE, Jaipur



Dr. Garima Mathur
HOD ECE, PCE



Dr. Shuchi Dave
Associate Prof., Mathematics, ECE, PCE

Resource Persons



Dr. Parama Shree Yogamaya
Assistant Professor,
Odisha



Dr. Pratiba Manjari Rath
Utkal University
Bhubaneswar, Odisha



Dr. Shatrughna Panigrahi
Associate Professor,
Sanskrit University,
Veraval, Gujarat



Dr. Partha Sarathi Mukhopadhyay
Associate Professor
Rama Krishna College
Kolkata, W.B.



DR. NARAYANA DASH
Assistant Professor
Rama Krishna College
Kolkata, W.B.



Dr. Madhusoodan Mishra
Assistant Professor
Sanskrit University, Varanasi



Dr. Rakesh Das
Mission Vivekananda Educational &
Research Institute, Howrah, W.B.



Prof. Banamali Biswal
Central Sanskrit University
Devprayag, Uttarakhand



Dr. Kedar Nath Das
Assistant Professor
NIT, Silchar, Assam

Day Date : Monday, September 28, 2020 • Time: 2.30 PM Onward

To join the Inaugural Session on



Google Meet

<https://meet.google.com/lookup/esaucqze1>

RSVP

Dr. Kamlesh Jangid
Dr. S.D. Purohit
(RTU, Event Coordinators)

Dr. Shuchi Dave
(Host Institute Coordinator)

♦ **TITLE AND DURATION:** “Latent Mathematics in Sanskrit Context” September 28-30, 2020

♦ **SPONSORS:** TEQIP-III, Rajasthan Technical University Kota.

♦ **SUPPORTERS:** Rajasthan Technical University Kota.

♦ **ORGANIZERS:** Rajasthan Technical University, Kota, and Poornima College of Engineering, Jaipur.

OBJECTIVES: The Programme aims at equipping teachers with skills and knowledge in the field of Ancient treasures, Mathematics, and Sanskrit alive that are essential for inculcating learning values in students and guiding and monitoring their progress toward their careers.

♦ **EXPECTED OUTCOMES:**

- To discuss state of the art developments and emerging techniques in Mathematics field with Sanskrit.
- To provide an opportunity for faculty members and ongoing researchers to equip and advance their knowledge in these application areas and also, identify the prospective areas for novel research.
- To exchange views, an idea the latest innovation in the field of Ancient Mathematics with Sanskrit.
- It also offers learning on adaptive Mathematics, Vedas, and, evolutionary learning in Mathematics with Sanskrit context.

BROCHURE / POSTER / LEAFLET / FLYER:

ABOUT TEQIP-III

The Project, third phase of Technical Education Quality Improvement Programme (referred to as TEQIP-III) is fully integrated with the Twelfth Five-year Plan objectives for Technical Education as a key component for improving the quality of Engineering Education in existing institutions with a special consideration for Low Income States and Special Category States and support to strengthen few affiliated technical universities to improve their policy, academic and management practices.

RAJASTHAN TECHNICAL UNIVERSITY

Rajasthan Technical University (RTU) is located in Kota in the state of Rajasthan. It was established in 2006 by the Government of Rajasthan. The University currently affiliates about 129 Engineering Colleges, 4 B.Arch., 41 MCA Colleges, 95 MBA Colleges, 44 M. Tech. Colleges and 3 Hotel Management and Catering Institutes. The University aims to provide quality technical education which may help Rajasthan in its technical development and will boost technical environment in the country.

POORNIMA COLLEGE OF ENGINEERING

Poornima College of Engineering (PCE), established as a brand of technical education in the year 2000, has its own glorious legacy of leading the young engineers to the mammoth sky of success. Its accomplishments forecast its journey through the hardships and its triumph over them one after another. PCE left no stone unturned since its establishment in turning the glorious vision into unbelievable reality providing the platform for knowledge and research and their practical implementations in different engineering professional prospects.

- Highly recognized and renowned affiliated technical institution allover Rajasthan with built up area more than 3.5 lacs square feet
- Affiliated to RTU, Kota & approved by AICTE, New Delhi
- The most preferred NBA Accredited Engineering College with running of six specializations of Engineering at UG Level (CSE, ECE, EE, ME/IT, CIV) and two at PG level (CS & VLSI)
- The only institution permitted by RTU to admit FN/PIO/Gulf students & designated as Centre of excellence by IBM

DEPT. OF ELECTRONICS & COMM. ENGG.

The Department of Electronics and Communication Engineering (ECE) was established in year 2003. National Board of Accreditation (NBA) accredited the ECE department in the year 2009 & 2016 for subsequent three years. It has intake capacity of 180. It also offers M. tech in VLSI Design with intake capacity of 18 students. The department has highly qualified committed and research oriented faculty members. The department has laboratories as per Rajasthan Technical University Syllabus with state-of-the-art facilities in diversified fields such as Electronic Circuits, VLSI Design, DSP (Digital signal processing), Embedded Systems, Advanced Wireless Communication and Microwave etc. Research is being carried out in the areas of Antenna Design and Wireless Communication, and VLSI design. The department also has to his credit three labs, (i) Microwave Engineering lab & (ii) Advance Antenna & Wireless Communication lab (iii) Advancement of Wireless and Optical Fiber Lab supported by MOOROS Grants of AICTE, New Delhi. IETE Student Forum (ISF) of the Department has been recognized as Most Active ISF for session 2016-17 by IETE Rajasthan Center, Jaipur. The department also has state of the art lab facility for the value added IBM Career Education Programs for faculty members and students on emerging technologies such as IBM BlueMix for Cloud, IBM Cognos for Business Intelligence and IoT Application Development & Deployment using IBM BlueMix.

ABOUT FACULTY DEVELOPMENT PROGRAM

The Vedas are the earliest records of human wisdom. Some number systems and related concepts that are exists in Vedas were discussed. The content is divided into four small sections. Some concepts: numbers, zero, infinity, and the importance of mathematics in shastras that exist in Vedas were presented. In particular, Vedic Mathematics is the mathematical knowledge of ancient Hindus passed down through generations (initially verbally) in the form of hymns/slokas (verses) in Sanskrit. Sanskrit literature explains the eight fold path which is used in mathematics as Samkalanam (Addition), Vyavakalanam (Subtraction), Gunanam (Multiplication), Bhaagah (Division), Vargah (Root), Vargamulam (Square Root), Ghanam (Cube) and Ghanamulam (Cube Root). The salient features of Square root and cube root are well explained by the great Indian Sanskrit scholars like: Arya Bhattacharya and Brahman Gupta. In Taittiriya Samhita; Brahmanas, Samantarashenis and Gunottarasenis these number concepts are well presented. This program will provide an opportunity to highlight recent trends and developments in technology emerging and future areas of growth in these existing fields. It will further give impetus to the researchers toward scribing out newer and efficient techniques. Expert invited speakers from both Mathematics and Sanskrit with their vast research experience in various fields will arouse the researchers for development of Mathematics in a new field.

TOPICS TO BE COVER

- An Introduction to Ancient Indian Mathematicians
- Numerical References in Vedic Texts
- अनेकसंख्येनानेनैकशतशत
- Glimpses of Mathematics in Ancient Indian
- श्रीमद्भगवद्गीतायां अनेकसंख्येनानेनैकशतशत
- श्रीमद्भगवद्गीतायां अनेकसंख्येनानेनैकशतशत
- Lilavati : treatise on Mathematics
- Contributions of Aryabhata to Astronomy and Mathematics
- Vedic Mathematics

FDP COMMITTEE

CHIEF PATRON

Prof. (Dr.) R. A. Gupta
Hon'ble Vice Chancellor, RTU Kota

PATRON

Dr. Mahesh M. Bunde
Principal & Director, Poornima College of Engineering, Jaipur

RTU (ATU) TEQIP-III COORDINATOR

Prof. (Dr.) Dhirendra Mather

RTU EVENT COORDINATOR

Dr. Kamlesh Jangid (RTU, KOTA)
Dr. S.D. Parashar (RTU, KOTA)

RTU (ATU) TEQIP-III COMMITTEE

- | | |
|-----------------------|---------------------------|
| Dr. Harish Sharma | Nodal officer |
| Prof. D. K. Sambariya | Nodal Officer Procurement |
| Dr. S. D. Purohit | Nodal Officer Finance |
| Dr. Irum Alvi | Conference |
| Mr. Sanjosh Sharma | Expert Lecture |
| Mr. Anshul Bansal | GATE & Induction |
| Mr. Dinesh Kumar | Workshop |

HOST INSTITUTE COORDINATOR

Dr. Shuchi Dave Associate Professor, Mathematics,

PCE ORGANIZING COMMITTEE

Dr. Garima Mathur, Professor & Head ECE
Dr. Ashok Kumar Kajla, Associate Professor, ECE
Dr. Payal Bansal, Assistant Professor, ECE
Mr. Tarun Mishra, Assistant Professor, ECE
Mr. Durgesh Kumar, Assistant Professor, ECE
Mr. Manish Sharma, Assistant Professor, ECE
Ms. Manisha Kumawat, Assistant Professor, ECE
Mr. Gaurav Saxena, Assistant Professor, ECE
Mr. Rajveer Marwal, Assistant Professor, ECE
Mr. Amit Kumar Jain, Assistant Professor, ECE

RESOURCE PERSONS



Dr. Paramita Shree Yogamaya, Assistant Professor, Department of Veda, Sri Jagannath Sanskrit Vishwavidyalaya, Shri Vihar, Puri, Odisha



Dr. Pratibha Manjari Rath, Post Graduate Department of Sanskrit, Utkal University, Bhubaneswar, Odisha



Dr. Shatrughna Panigrahi, Associate Professor, Department of Veda, Shree Somnath Sanskrit University, Veraval, Gujarat



Dr. Narayana Dash, Asst. Professor, Department of Sanskrit, Rama Krishna Mission Residential College, Narendrapur, Kolkata



Associate Professor, Department of Jyotisha, Sampurnanand Sanskrit University, Varanasi, UP



Mission Vivekananda Educational & Research Institute, Ramakrishna Belur, Howrah, W.B.



Prof. Banamali Biswal, Head of Department, Vyakarna, Central Sanskrit University, Raghunathji Campus Devprayag, Uttarakhand



Dr. Kedar Nath Das, Asst. Prof., Dept. of Mathematics, NIT, Silchar, Assam



Dr. Partha Sarathi Mukhopadhyay, Associate Professor, Department of Mathematics, Ramakrishna Mission Residential College (Autonomous), Narendrapur, Kolkata, W.B.

RESOURCE PERSONS

The resources persons for the FDP will be Eminent Professors and Experts in the area of Mathematics from IITs, NITs, Central University and other Esteemed Institutions.

ELIGIBILITY

This course is open to all the Faculty Members of AICTE Approved Institutions, Research Scholars, and Persons working in R&D organizations or Industry. Number of participants for FDP is limited. All the sessions will be conducted online only.

REGISTRATION & FEE PARTICULARS

There is no registration fee for faculty from AICTE approved Institutions, Participants from Industry, and Research Scholars. • Registration for the program may be done by filling the Registration Form online, Reg. Link: <https://forms.gle/XmJUEG3WSNj0b7>

IMPORTANT DATES

Last date of receipt of application	September 26, 2020
Intimation of selection by mail	September 27, 2020
FDP duration	September 28-30, 2020

CORRESPONDENCE

Dr. Shuchi Dave
Associate Professor, Mathematics
Department of Electronics & Communication Engineering
Poornima College of Engineering
ISI-6, RIICO Institutional Area, Sitapura, Jaipur, Rajasthan
302022
Shuchi.dave@poornima.org
8058402483

Venue

Department of Electronics & Communication Engineering

POORNIMA
COLLEGE OF ENGINEERING

ISI-6, RIICO Institutional Area, Sitapura, Jaipur, Rajasthan
302022 www.pce.poornima.org



RTU (ATU) SPONSORED
Three Days Faculty Development
Program

on
**LATENT MATHEMATICS IN
SANSKRIT CONTEXT**

(September 28-30, 2020)



Rajasthan Technical University, Kota
&
Department of Electronics & Communication
Engineering, PCE, JAIPUR



POORNIMA
COLLEGE OF ENGINEERING

Affiliated to RTU, Kota • Approved by AICTE & UGC under
2(f) • Accredited by NBA

Dr. Mahesh Bunde
B.E., M.E., Ph.D.

Director,
Poornima College of Engineering
ISI-6, RIICO Institutional Area
Sitapura, JAIPUR

♦ **PROGRAM SCHEDULE:**



**RAJASTHAN TECHNICAL UNIVERSITY,
KOTA**

**Poornima College of Engineering
TEQIP-III RTU (ATU) SPONSORED**

**Faculty Development Program
Latent Mathematics in Sanskrit Context
(September 28-30, 2020)**



Date: September 28, 2020

Time: 2:30PM-3:00PM

Venue: Online

Q-Sheet- Inaugural Session

S. No	Activity	Duration	Time
1.	<ul style="list-style-type: none"> Welcome of Dignitaries and Introduction of FDP by Dr. Shuchi Dave, (Associate Prof.) Coordinator, PCE Prof. (Dr.) R.A. Gupta, Hon'ble Vice Chancellor, RTU, Kota (Chief Guest) Prof. (Dr.) Dharendra Mathur, RTU (ATU) TEQIP- III Coordinator (Guest of Honour), Kota Dr. Paramba Shree Yogamaya, Shri Jagannath Sanskrit Vishvavidyalaya (Guest of Honour), Odisha Ar. Rahul Singhi, Director, Poornima Group, Jaipur Dr. Kamlesh Jangid, RTU, Kota (Event Coordinator) Dr. S.D. Purohit, RTU, Kota, (Event Coordinator) Dr. Mahesh Bunde, Director & Principal, Poornima College of Engineering, Jaipur Dr. Garima Mathur, HOD, ECE, Poornima College of Engineering, Jaipur 	03 Min	2:30PM - 2:33PM
2.	Welcome Address by Dr. Mahesh Bunde, Director & Principal, Poornima College of Engineering, Jaipur	04Min	2:33PM - 2:37PM
3.	Welcome Address by Ar. Rahul Singhi, Director, Poornima Group, Jaipur	03Min	2:37PM - 2:40PM
4.	About the FDP by Dr. Kamlesh Jangid, RTU Event Coordinator, RTU Kota	05 Min	2:40PM - 2:45PM
5.	Introduction of Guest of Honour & Address by Guest of Honour Prof (Dr.) Dharendra Mathur, RTU (ATU) TEQIP-III Coordinator, Kota Dr. Paramba Shree Yogamaya, Shri Jagannath Sanskrit Vishvavidyalaya, Odisha	05 Min	2:45PM - 2:50PM
6.	Introduction of Chief Guest & Inaugural Address by the Chief Guest Prof. (Dr.) R.A. Gupta, Hon'ble Vice Chancellor, RTU Kota	05Min	2:50PM - 2:55PM
7.	Vote of Thanks by Dr. Garima Mathur HOD, ECE, PCE, Jaipur	05 Min	2:55PM - 3.00 PM


Dr. Mahesh Bunde
 B.E., M.E., Ph.D.
 Director
 Poornima College of Engineering
 ISI-6, PUICO Institutional Area
 Jaipur, JAIPUR

♦ **INAUGURAL SESSION:**

Shree Yogamaya, Assistant Professor, Shri Jagannath Sanskrit Vishvavidyalaya, Puri, Odisha, Dr. Kamlesh Jangid, RTU Event Coordinator, and Architect Rahul Singhi, Director Poornima Group and Dr. Mahesh M. Bundele, Director, Poornima College of Engineering. More than 100 Faculty members attended this Faculty development program.

In the coming 3 days, eminent speakers from all over India will deliver their lectures and share their knowledge on the upcoming research topics. Mathematics with Sanskrit is also a very collaborative discipline so; doing scientific research is like a big venture that gives us an amazing feeling. This research has been a lot of fun and it is very important for the world also. Understanding Classical Scientific Texts of India in an Immersive Sanskrit Environment is a new field of interest for researchers. This FDP will definitely inspire participants to research, innovate, study and teach mathematics and science in Sanskrit also.



♦ DETAILS OF RESOURCE PERSONS:

Poornima College of Engineering Department of Electronics & Communication Engineering Faculty development Program on "Latent Mathematics in Sanskrit Context"				
	02:30 PM -3:00 PM	03:00 PM -4:00 PM	04:00 PM -5:00 PM	05:00 PM -6:00 PM
Monday 28.09.2020	Inaugural Session	Dr. Paramba Shree Yogamaya Shri Jagannath Sanskrit Vishvavidyalaya Puri, Odisha "An Introduction to Ancient Indian Mathematicians"	Dr. Prativa Manjari Rath Utkal University, Bhubaneswar, Odisha "Numerical References in Vedic Texts"	Dr. Shatrughna Panigrahi, Shree Somanath Sanskrit University, Veraval, Gujarat "काव्यायनशुल्बसूत्रोमेभारतीयगणितकीपरिचर्या"
Tuesday 29.09.2020		Dr. Partha Sarathi Mukhopadhyay Ramakrishna Mission college, Kolkata "Glimpses of Mathematics in Ancient Indian"	Dr. Narayan Dash Rama Krishna Mission College, Kolkata "प्राचीन गणित में श्रीधराचार्य का योगदान- पाटीगणितसार: की दृष्टि से"	Dr. Madhusoodan Mishra Sampurnanand Sanskrit University, Varanasi "प्राचीन भारतीय गणितशास्त्र: भास्कराचार्य द्वितीय की दृष्टि से"
Wednesday 30.09.2020		Dr. Rakesh Das Mission Vivekananda Educational & Research Institute Belur, Howrah "Lilavati : treatise on Mathematics"	Prof. Banamali Biswal Central Sanskrit University, Uttarakhand "Contributions of Aryabhata to Astronomy and Mathematics"	Dr. KedarNath Das NIT, Silchar, Assam "Vedic Mathematics"

♦ Dr. Paramba Shree Yogamaya, Assistant Professor, Shri Jagannath Sanskrit Vishvavidyalaya, Puri, Odisha

♦ Dr. Satrughna Panigrahi, Associate professor Jagannath sanskrit Vishvavidyalaya, Puri, Odisha

♦ Dr. Partha Sarathi Mukhopadhyay, Associate Professor, Dept. of Mathematics Ramakrishna Mission Residential College, Calcutta

♦ Dr. Narayan Das, Asst. Professor in Sanskrit in Department of Sanskrit, Rama Krishna Mission Residential College (Autonomous), Kolkata, W.B.

♦ Dr. Madhusoodan Mishra, Assistant Professor, Dept. of Jyotish, Sanskrit University, Varanasi, U.P

♦ Prof. Banamali Biswal, Head of the Department of Vyakarana, Central Sanskrit University, Raghunath Kirti Campus, Devprayag, Uttarakhand.

♦ Dr. Raksh Das, Associate Professor, Dept. of Sanskrit studies, Ramakrishna Mission Vivekananda university, Howrah, West Bengal

♦ Dr. Kedar Nath Das Assistant Professor in the Department of Mathematics, NIT Silchar, Assam

♦ **CONTENT DELIVERY / PRACTICAL SESSIONS:**

♦ **Day1, 28 September 2020**

Dr. Paramba Shree Yogamaya



On the very first day i.e. 28 Sept 2020 of this FDP Dr. Paramba Shree Yogamaya ,Assistant Professor in the Department of Veda at Shri Jagannath Sanskrit University, Puri, odhisa deliver her lecture on **“An Introduction to Ancient Indian Mathematicians”** She told us about the number of ancient mathematicians like Aryabhatta, Ramanujan, Shakuntala devi ,Bhaskaracharya etc. and about their contributions to Indian mathematics and in science .Next session was delivered by Dr. Satrughna Panigrahi, Associate professor Jagannath sanskrit Vishvavidyalaya, Puri, Odisha.His topic of presentation was “कात्यायनशुल्बसूत्रमों भारतीयगणितकीपरण चर्चा”. He explained about what is shulbh sutra and how they can be used in mathematics .he explained some other concepts of mathematics which are given in geometry .Last session was delivered by speaker Dr. Narayan Das Asst. Professor in Sanskrit in Department of Sanskrit,Rama Krishna Mission Residential College (Autonomous) ,Kolkata, W.B. . His topic of presentation was“प्राचीन गणित में श्रीधरचार्य का योगदान पाटीगणितसारः की दृष्टि से”. He explained about shridharacharya who explain about the zero or shoonya in his own way, he also explain about solution of quadratic equations. He has given very amazing analysis over number zero.

Meaning of the word 'Ganita'

The word 'गणित' is from the root गण् (संख्याने – to count).
गणिते गणितः । (अपराजयम्)
- संख्याते गणितम् । (अमरकोशः)

It is said in the Arthashastra of Kautilya that having undergone the Choula ceremony (tonsure), the student shall learn the alphabets (jipi) and arithmetic (संख्यजानम् - samikhyana).

बुध-चौल-कर्म विधि संख्याते चौपयुद्धित ।। (Arth. Shas. 1.5.7)

➤ Mathematics is a Language through which Sciences are expressed compactly.

रेखा चित्र के साथ इकाइयों

Diagram showing a square with side length 1 unit, divided into four smaller squares, each with side length 1/2 unit. The total area is 1 unit squared, and the area of each smaller square is 1/4 unit squared.

शुद्धमूलों की संख्या

यह तालिका बताती है कि एक द्विघात का कितने शुद्ध मूल हैं।
एक द्विघात का स्वरूप $ax^2 + bx + c = 0$ है।
यह शुद्धमूल होने के लिए $b^2 - 4ac \geq 0$ होना चाहिए।

विशेष	शर्त	शुद्धमूलों की संख्या
सामान्य	$b^2 - 4ac > 0$	2
समरूप	$b^2 - 4ac = 0$	1
असंभव	$b^2 - 4ac < 0$	0

परिगणितसारः

- परिगणितसार में एक ही गणितीय विषय को अनेक प्रकार से बताया गया है। इसमें एक ही विषय को अनेक प्रकार से बताया गया है। इसमें एक ही विषय को अनेक प्रकार से बताया गया है।
- इसमें एक ही विषय को अनेक प्रकार से बताया गया है। इसमें एक ही विषय को अनेक प्रकार से बताया गया है। इसमें एक ही विषय को अनेक प्रकार से बताया गया है।

वर्ग समाकरण हल करने का आधाराय विधि

$ax^2 + bx + c = 0$
 $4a^2x^2 + 4abx + 4ac = 0$; (4a से गुणा करने पर)
 $4a^2x^2 + 4abx + 4ac + b^2 = 0 + b^2$; (दोनों पक्षों में b^2 जोड़ने पर)
 $(4a^2x^2 + 4abx + b^2) + 4ac = b^2$
 $(2ax + b)(2ax + b) + 4ac = b^2$
 $(2ax + b)^2 = b^2 - 4ac$
 $(2ax + b)^2 = (\sqrt{D})^2$; ($D = b^2 - 4ac$)
 अतः x के दो मूल (रूट) निम्नलिखित हैं-
 पहला मूल $\alpha = \frac{-b - \sqrt{(b^2 - 4ac)}}{2a}$
 दूसरा मूल $\beta = \frac{-b + \sqrt{(b^2 - 4ac)}}{2a}$
 अर्थात् $X = \frac{-b \pm \sqrt{(b^2 - 4ac)}}{2a}$

♦ Day 2, 29 September 2020

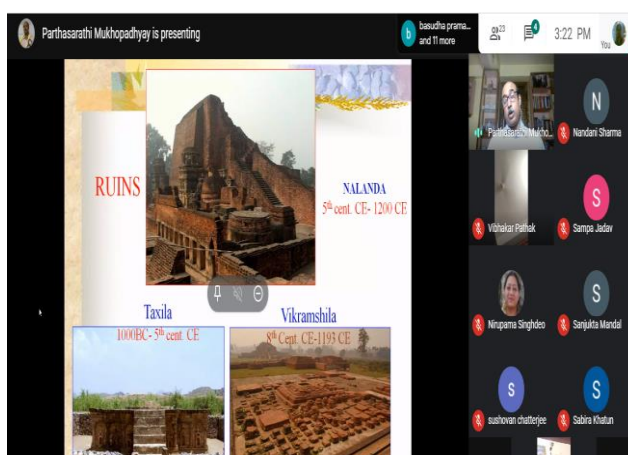
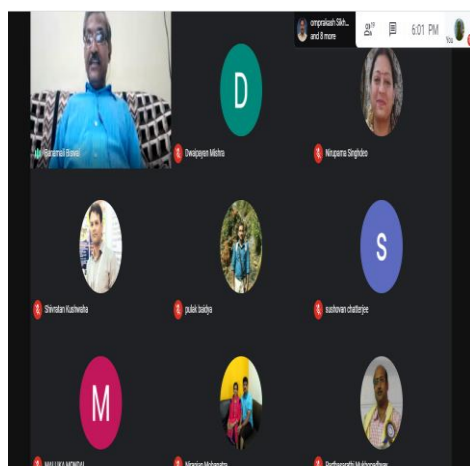
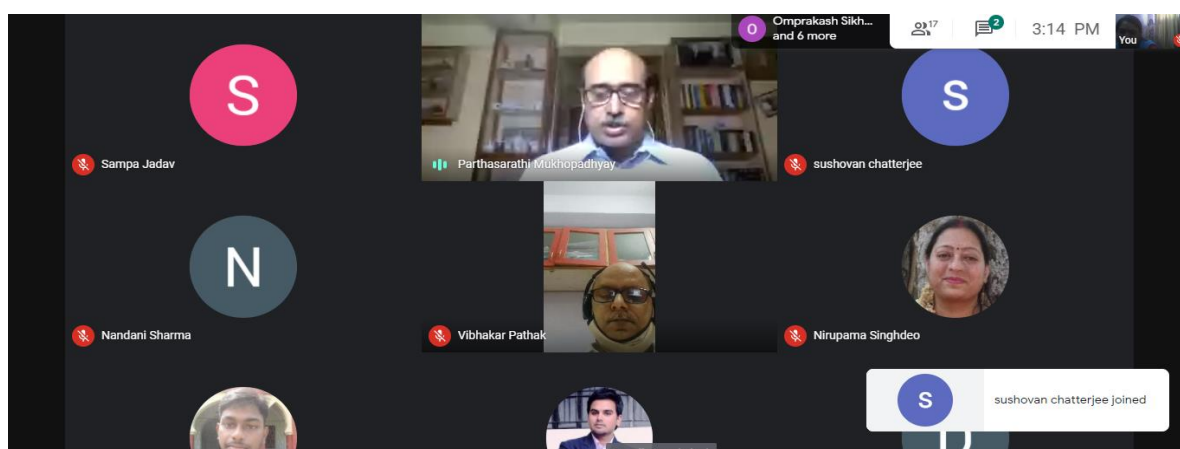
On 29 Sept., second day of this FDP, the first session was delivered by Dr. Partha Sarathi Mukhopadhyay, Associate Professor, Dept. of Mathematics Ramakrishna Mission Residential College, Calcutta. His title of presentation was "Glimpses of Mathematics in Ancient Indian".

He entitled us about the concepts that there is amazing mathematics used in Hindu rituals in constructions of vedis, structures and cities and institutions at ancient times.

The next session was delivered by Dr. Madhusoodan Mishra is Presently working as an Assistant Professor, Dept. of Jyotish, Sanskrit university, varanasi, U.P. He present the topic " प्राचीन भारतीय गणितशास्त्र: Bhaskaracharya dwitiya की दृष्टि से".

He told about how Vedic ganita is developed and what are the basic rules or tools which were used for numbers in mathematics. Last session was delivered by speaker Prof. Banamali Biswal, Head of the Department of Vyakarana, Cenral Sanskrit University, Raghunath Kirti Campus, Devaprayag, Uttarakhand. His topic of presentation was "Contributions of Aryabhata to Astronomy and Mathematics". He explained the contribution of Aryabhata to astronomy and mathematics.

Dr. Partha Sarathi Mukhopadhyay





♦ Day 3, 30 September 2020

The third day afternoon of 30 Sept, the first talk in the afternoon session was delivered by Dr. Rakseh Das, Associate Professor, Dept. of Sanskrit studies, Ramakrishna Mission vivekananda university, howrah, west bangal. His topic of presentation was *Līlāvātī: A Treatise*. He explain about comprehensive exposition of arithmetic, algebra, geometry, mensuration, number theory and related topics. Mathematical explanation of definitions, formulae, short cuts and methodology as intended by Bhaskara. Joy and appreciate the beauty of accurate and musical presentation in Lilavati. The book is useful to school going children, sophomores, teachers, scholars, historians and those working for cause of mathematics.

The next session was delivered by Dr. Narayan Das, Asst. Professor in Sanskrit in Department of Sanskrit, Rama Krishna Mission Residential College (Autonomous) ,Kolkata, W.B.

His topic of presentation was "प्राचीन भारत में गणित तत्वों का विचार ". From the earliest Vedic codes of the world, mathematics and religion should be treated separately as separate text (Yotash) has used 'Ndash' for the Lord and this advice. The word is that one should go to him to achieve the best. (Nayana Nadasham). The name 'Ganat' in the form of Sha in VedaIt is not mentioned but it is said that the account of the law of water-The help of 'calculator' should be taken to keep the jokha. The latest addition to 'Ganat' as Sha, Vedang by Lagadha Rishta Considered in a folk called Yotash.

Last session was delivered by Dr. Kedar Nath das Assistant Professor in the Department of Mathematics, NIT Silchar, Assam. His topic of presentation was Vedic Mathematics. he explains about mathematical techniques, which were retrieved from the Vedas and supposedly contained all mathematical knowledge.

♦ GLIMPSES OF CONDUCTION:

The collage consists of five screenshots from a virtual session. The top-left screenshot shows a diagram of a triangle with internal lines and angles, labeled "क्षेत्रव्यवहार: (Area)". The top-right screenshot shows a list of numbers (12, 98, 1008, 9997, 99950) under the heading "Multiplying two numbers which are close to the same power of 10". The middle-left screenshot shows a portrait of a man with a beard, labeled "Vedic Mathematics" and "Dr. Kedar Nath Das". The middle-right screenshot shows a list of numbers (1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33) under the heading "वैदिक प्रयोग". The bottom-left screenshot shows a diagram of a triangle with internal lines and angles, labeled "संक्रान्तिवृत्तम्". The bottom-right screenshot shows a diagram of a triangle with internal lines and angles, labeled "Solving Linear equation where the ratio of the coefficient of one of the variables are in ratio of the independent terms".

♦ VALEDICTORY SESSIONS:

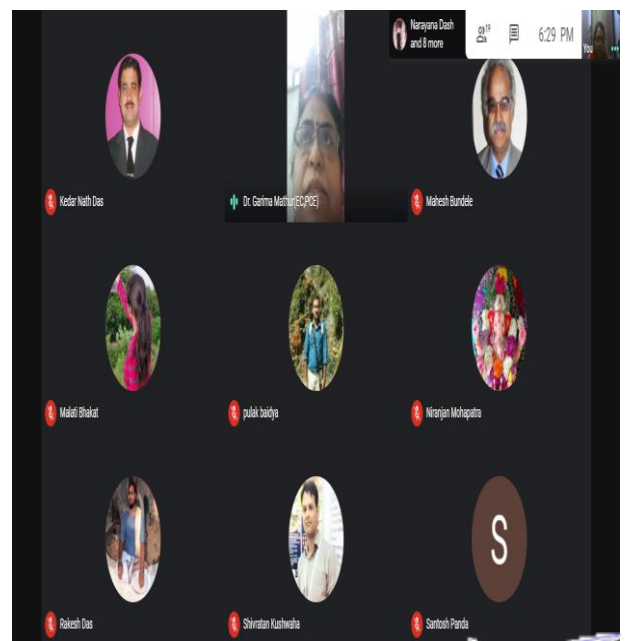
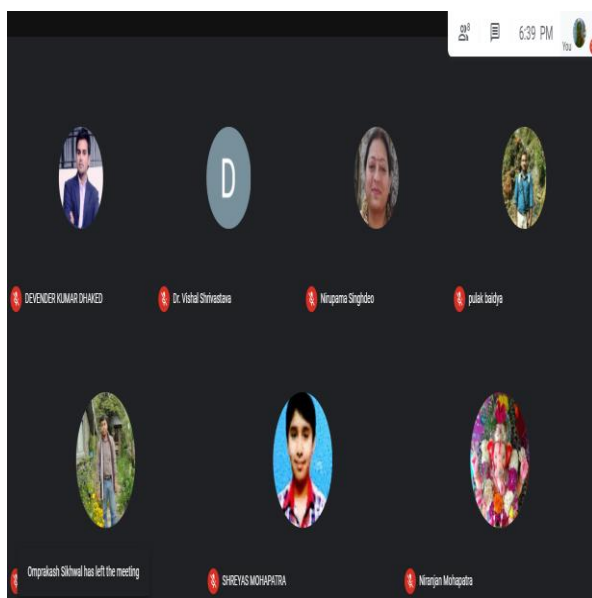
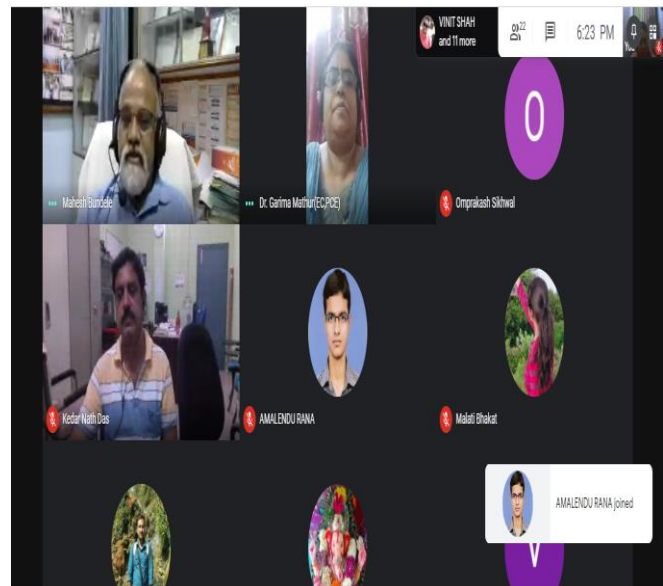
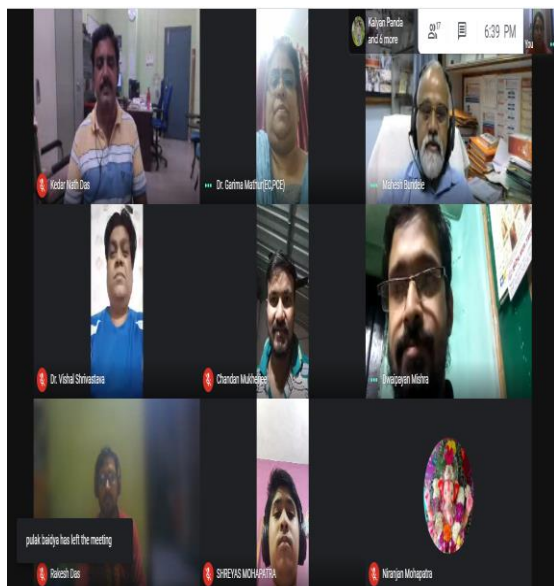
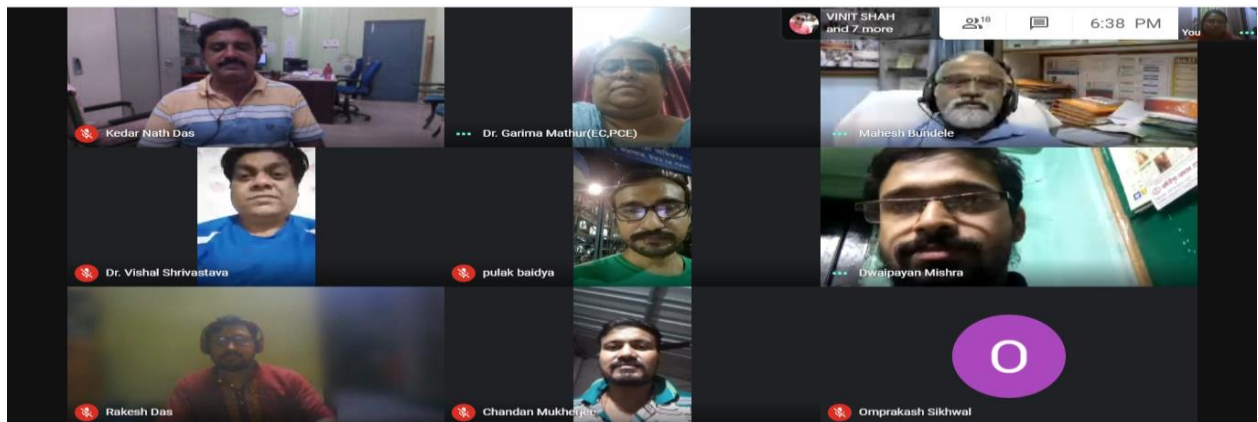
At the end valedictory session was organized. Dr. Kedar Nath Das, Assistant Professor in the Department of Mathematics, NIT Silchar, Assam was the guest of honor, Dr. Mahesh M Bunde, Director Poornima college of Engineering, Dr Garima Mathur HOD, Electronics and Comm. Eng depts also grace the occasion. Participants from different part of country share their experience about FDP. They appreciate the topic of FDP and initiative taken by Poornima College to arrange such a nice FDP. Dr. Mahesh M. Bunde share his views on FDP, also Dr. Kedar Nath Das

Dr. Mahesh Bunde
B.E., M.E., Ph.D.
Director
Poornima College of Engineering
ISI-6, FIICO Institutional Area
Shilapora, JAIPUR

Poornima College of Engineering - Activity Report – 2020-21

his feelings about the event. Dr. Garima Mathur presented the report of 3 day's FDP program. Dr. Shuchi Dave proposed the vote of thanks to all. A group photograph has done at the end.

Group Photograph




Dr. Mahesh Bunde
B.E., M.E., Ph.D.
Director
Poornima College of Engineering
ISI-0, FIICO Institutional Area
Shilpura, JAIPUR


♦ LIST OF PARTICIPANTS:

List of Participant for Certificate			
Certificate Number	Name	Certificate Number	Name
1	Ms. ADITI AGRAWAL	45	Ms. KANIKA PATRA
2	Mr. AMALENDU RANA	46	Ms. KOYEL DAS
3	Mr. AMIT PAUL	47	Ms. LATA MISRA
4	MR. AMLAN GHOSAL	48	Ms. MALATI BHAKAT
5	Ms. ANANYA SARKAR	49	Ms. MANISHA KUMAWAT
6	Ms. ANU ARORA	50	Ms. MANJU MALIK
7	Mr. APU BARMAN	51	Dr. MEENAKSHI NAWAL
8	Mr. AVIK DHAR	52	Ms. MITALI MANDAL
9	Mr. AYUSH GOYAL	53	MR. DIPANKAR TALUKDER
10	Mr. AYUSH NAGAR	54	MR. MITRAM KANTI BHOWMICK
11	DR. BHAVTOSH AWASTHI	55	MR. NANDAN MANDAL
12	Mr. BHOLANATH MONDAL	56	Ms. NANDANI SHARMA
13	Mr. CHANDAN MUKHERJEE	57	Ms. PAULAMI ROY CHOWDHURY
14	MR. DEVENDER KUMAR DHAKED	58	Dr. PAYAL BANSAL
15	Mr. DIPANKAR DUTTA	59	Mr. PINTU CHOWDHURY
16	DR. PARAS RAM SHASTRI	60	Ms. PRATIMA DAS
17	DR. RANDHIR SINGH BAGHEL	61	Mr. PULAK BAIDYA
18	DR. A K MALIK	62	Mr. RAKESH RANJAN
19	DR. ANILA DHINGRA	63	Ms. RASHMI MODI
20	DR. ANUJ KUMAR JHANKAL	64	Ms. RITA MONDAL
21	DR. ASHOK KUMAR KAULA	65	Ms. RUCHI DAVE
22	DR. DHARMENDRA KUMAR SINGHDEO	66	Mr. SADANANDA HALDER
23	DR. GARIMA MATHUR	67	Mr. SAHIL CHARAYA
24	DR. KALYAN PANDA	68	MS. SAMPA JADAV
25	DR. KAMLESH JANGID	69	Ms. SANGITA MOURI
26	Dr. NIRUPAMA SINGHDEO	70	Ms. SANJUKTA MANDAL
27	DR. OMPRAKASH SIKHWAL	71	Ms. SAYANTI MANDAL
28	DR. PINKI DAS	72	Mr. SHIVRATAN KUSHWAHA
29	DR. PRAPHULL CHHABRA	73	Mr. SHRABANI MONDAL
30	DR. PRITAM ROOJ	74	Mr. SHREYAS MOHAPATRA
31	DR. S.D. PUROHIT	75	DR. SHYAMAL GOSWAMI
32	DR. SHUCHI DAVE	76	Mr. SOMNATH PRADHAN
33	DR. SUDHAMOY HALDER	77	Ms. SRIMAYEE RATH
34	DR. TARAK JANA	78	Mr. SUBHAMOY DAS
35	DR. VISHAL SHRIVASTAVA	79	Mr. SUDIP SAHOO
36	DR. VISHNU NARAYAN MISHRA	80	Ms. SUDIPA HALDER
37	DR. ABINASH GAYEN	81	Mr. SUJAN KUNDU
38	DR. HARISHANKAR NJOIS	82	Mr. SUSHOVAN CHATTERJEE
39	Mr. DWAIPAYAN MISHRA	83	Mr. SWADHIN RUIDAS
40	Mr. GAURAV MISHRA	84	Mr. TARUN MISHRA
41	Mr. JAGDISH PRASAD MAHESHWARI	85	Mr. TITAN CHANDRA SARKAR
42	Mr. JOYDEB DINDA	86	Ms. TRISHNA MANDAL
43	Mr. JYOTI NATH	87	Mr. VIBHAKAR PATHAK
44	Mr. JYOTIRMOY DAS	88	Mr. VINIT SHAH
		89	Mr. Gobinda Sen
		90	Mr. Agrahdeep

♦ Certificate of FDP



Three Days TEQIP-III Sponsored Faculty Development Programme
On
Latent Mathematics in Sanskrit Context
Organised By
Rajasthan Technical University, Kota
Poornima College of Engineering, Jaipur





TEQIP-III

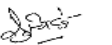
☞ - Certificate

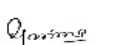
Ref No. RTU/TEQIP-III /F-(56)/2019-20/5181-91


This is to certify that Dr./Mr./Ms. "Name" of "participants college name" has participated in the Three Days Faculty Development Programme on "Latent Mathematics in Sanskrit Context" held from 28/09/2020 to 30/09/2020 at "Electronics & Communication Engineering", Poornima College of Engineering Jaipur, Rajasthan".


Dr. Kamlesh Jangid
 (Event Coordinator)
 (RTU, Kota)


Dr. S.D. Purohit
 (Event Coordinator)
 (RTU, Kota)


Dr. Shuchi Dave
 (Coordinator)
 (PCE, Jaipur)


Dr. Garima Mathur
 (HOD, EC)
 (PCE, Jaipur)


Dr. Mahesh M. Bunde
 (Director & Principal)
 (PCE, Jaipur)

Dr. Mahesh Bunde
 B.E., M.E., Ph.D.
 Director
 Poornima College of Engineering
 ISI-0, FUICO Institutional Area
 Shilpura, JAIPUR

♦ **FEEDBACK ANALYSIS:**

[Feedback Form-FDP on "Latent Mathematics in Sanskrit Context"\(September 28-30, 2020\)](#)

Email address *

Name (Capital Letters)(As required in Certificate) *

Designation *


Name of Institute with place *

How satisfied were you with the event? *

1	2	3	4	5
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Which sessions did you find most relevant? *

	Not relevant	Relevant	Very relevant	Did not attend
An Introduction to Ancient Indian Mathematicians	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
कात्यायनशुल्बसूत्रोंमेंभारतीयगणितकीपरिचर्चा	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
प्राचीनगणितमेंश्रीधराचार्यकायोगदान-पाटीगणितसारःकीदृष्टिसे	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Glimpses of Mathematics in Ancient Indian	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
प्राचीनभारतीयगणितशास्त्र : भास्कराचार्यद्वितीयकीदृष्टिसे	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contributions of Aryabhata to Astronomy and Mathematics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Lilavati : treatise on Mathematics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
प्राचीन भारत में गणित तत्वों का विचार	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>


Dr. Mahesh Bunde
B.E., M.E., Ph.D.
Director
Poornima College of Engineering
ISI-6, FIICO Institutional Area
Sitapura, JAIPUR

Vedic Mathematics				
-------------------	---	---	---	---

Any overall feedback for the event? *

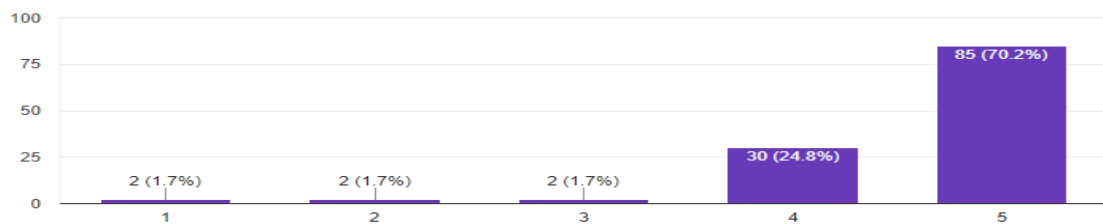
	Not relevan t	Relevan t	Very relevan t	Did not atten d
An Introduction to Ancient Indian Mathematicians	4	39	74	4
कात्यायनशुल्बसूत्रोंमेंभारतीयगणितकीपरिचर्चा	4	43	69	5
प्राचीनगणितमेंश्रीधराचार्यकायोगदान-पाटीगणितसार:कीदृष्टिसे	4	38	75	4
Glimpses of Mathematics in Ancient Indian	5	39	72	5
प्राचीनभारतीयगणितशास्त्र : भास्कराचार्यद्वितीयकीदृष्टिसे	2	39	76	4
Contributions of Aryabhata to Astronomy and Mathematics	2	40	72	7
Lilavati : treatise on Mathematics	4	37	74	6
प्राचीन भरत में गणित तत्वों का विचार	2	35	79	5
Vedic Mathematics	2	37	77	5
Any overall feedback for the event? 121 responses				
Good				
Excellent				
GOOD				
Excellent				
good				
It was very useful to me				

Very good
Very good webinar
Very nice and informative.
Such a nice Webinar

How satisfied were you with the event?

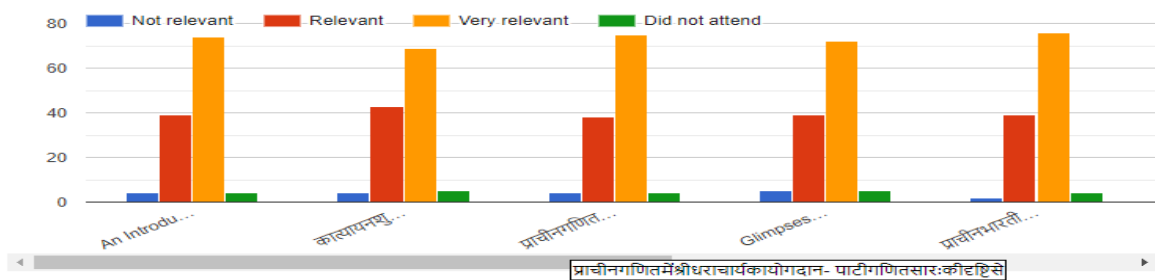
121 responses

Copy



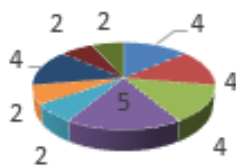
Which sessions did you find most relevant?

Copy



♦ SWOT ANALYSIS

SWOT ANALYSIS



- An Introduction to Ancient Indian Mathematicians
- काल्यायनशुल्बसूत्रोंमेंभारतीयगणितकीपरिचर्चा
- प्राचीनगणितमेंश्रीधराचार्यकायोगदान- पाटीगणितसार:कीदृष्टिसे
- Glimpses of Mathematics in Ancient Indian
- प्राचीनभारतीयगणितशास्त्र : भास्कराचार्यद्वितीयकीदृष्टिसे
- Contributions of Aryabhata to Astronomy and Mathematics