



## Human Resource Development Centre

( UGC SPONSORED PROGRAMME )

GUJARAT UNIVERSITY  
AHMEDABAD - 9



ज्ञान-विज्ञान विमुक्तये

### **Gujarat University Organizes Three Day Mathematics Workshop on “Application of Technology in Teaching of Mathematics” (9<sup>th</sup> -10<sup>th</sup> -11<sup>th</sup> February 2017)**

Under Rashtriya Uchchar Shiksha Abhiyan

#### **INTRODUCTION:**

Human Resource Development Centre of Gujarat University in association with DASS Scientific Research Labs Private Limited (DASS SRL) is going to organize a three days' Mathematics Workshop on “Application of Technology in Teaching Mathematics”, specially to focus on a new system for mathematics Teaching and Demonstration. This is a short-term course (STC) sponsored by Rashtriya Uchchar Shiksha Abhiyan (RUSA).

Human Resource Development Centre was established in 1987 as Academic Staff College but It was renamed as Human Resource Development Centre in the year 2015. It is established as a crucial link between teacher motivation and the quality of education. Human Resource Development Centre has been working for excellence in higher education since 1987. It helps the College and University teachers in developing their skills. It organizes specially designed orientation programmes for all new entrants at the level of lecturers. It also organizes such programmes (orientation or refresher courses) for serving teachers to cover every teacher at least once in three to five years. It tries to encourage teachers to participate in seminars, symposia, workshops, Short Term Courses, etc.

Gujarat University is one of the largest and oldest universities of the state of Gujarat. It was established in 1949 under the Gujarat University Act. The idea of setting up the university conceived in 1940s and the seed of inceptions was laid down by Shri Sardar Vallabhbhai Patel under the chairmanship of Mr. G. B. Mavlankar in consultation with Mr. Kasaturbhai Lalbhai and Acharya Anand Shankar Dhruv. Gujarat University is affiliating university, having more than 350 affiliated colleges, 35 post graduate departments and more than 50 affiliated post graduate centres with diversified courses in faculties of Arts, Commerce, Science, Education, Law, Medical, Dental, etc. The university spans over eight districts like Ahmedabad, Gandhinagar, Kheda, Anand, Vadodara, Panchamaharashtra, Dahod, Mahisagar and two union territories. Therefore, it covers a significant geographical area of the state and provides expressions to the educational aspiration of about 2 Crore Urban, Rural and Tribal communities of the region. Starting with the only university in the region during the erstwhile Bombay Province, at present almost all 10 universities of the state have evolved from Gujarat University.

## ABOUT THE WORKSHOP:

Math is the key subject in every sphere of life. Be it solving complex equations, bargaining, natural phenomenon or simple house hold work, everywhere math plays its essential role. The conventional methods of solving problems involve high end calculations and complex concepts. Many times, without understanding the actual problem, students follow and apply the mathematical concepts mechanically. Teaching advanced mathematical concepts to the students remained a challenge for centuries. It has become more challenging in the twenty-first century due to rapid advancement of technologies. With the rapid advancement of technologies, mathematics and related subjects are developing at an accelerated rate. Day by day new topics are being added and the old topics are getting substantial facelift. But the teaching methodology of these subjects remained stagnant for centuries. This is creating a huge gap between the required skill and the actual skill of students. Majority of the students struggling to keep pace with the new developments. Time has come to introduce proper technology to teach, learn, understand advanced mathematical concepts. In this workshop, an attempt will be made to explore different technologies available for solving mathematical problems and understanding the mathematical concepts.

This workshop is meant to help participants and professionals to visualize few important mathematical concepts, so that they can correlate these into any other form and develop a quick understanding of a problem and instantly find a method for its solution logically. The workshop provides few tricks that will help to analyze a problem without any complexity.

This is a mathematics Workshop and participants are required to bring their own Laptops with MS Excel preloaded for hands on practice.

## SESSION BREAKUP:

### **Day 1 (February 9<sup>th</sup>, 2017 Thursday)**

10:00 a.m. - 11:30 a.m. Brainstorm: Math is Not Hard

11:30 a.m. - 11:45 a.m. Tea/Coffee Break

11:45 a.m. - 01:15 p.m. Evolution of Mathematics

01:15 p.m. - 01:45 p.m. Lunch Break

01:45 p.m. - 03:15 p.m. Mathematics through Points and Lines

03:15 p.m. - 03:30 p.m. Tea/Coffee Break

03:30 p.m. - 05:00 p.m. Characteristics of curves and Exploring Dynamic World through Matrices

Home work: Model a clock in Excel

### **Day 2 (February 10<sup>th</sup>, 2017 Friday)**

10:00 a.m. - 11:30 a.m. Drawing Points, Lines, Planes in MS Excel

11:30 a.m. - 11:45 a.m. Tea/Coffee Break

11:45 a.m. - 01:15 p.m. Three Dimensional Transformations

01:15 p.m. - 01:45 p.m. Lunch Break

01:45 p.m. - 03:15 p.m. Homogeneous Coordinate System

03:15 p.m. - 03:30 p.m. Tea/Coffee Break

03:30 p.m. - 05:00 p.m. Drawing Cubes, Surfaces and Animation in Excel

Home work: Model Kepler's Law

**Day 3 (February 11<sup>th</sup>, 2017 Saturday)**

10:00 a.m. - 11:30 a.m. Victory over Vectors

11:30 a.m. - 11:45 a.m. Tea/Coffee Break

11:45 a.m. - 01:15 p.m. Simplifying Complex Algebra

01:15 p.m. - 01:45 p.m. Lunch Break

01:45 p.m. - 03:15 p.m. Calculating with Calculus

03:15 p.m. - 03:30 p.m. Tea/Coffee Break

03:30 p.m. - 05:00 p.m. Discussion/ Documentation/ Q&A Session / Feedback

**ABOUT THE SPEAKER: Mr. Chanchal Dass, FIE**

- A fellow of Institution of Engineers (Mechanical Engineering)
- Post Graduate Diploma in "Operations Research"
- Master of Business Administration in Financial Management
- Worked in a position of Development Strategy Executive in ONGC as Reservoir Engineer.
- Inventor of Multiple Zone Well Completion Technology and Electronic Contract Bridge Gaming App and New system for Mathematics Teaching and Demonstration.
- Life Member of Indian Mathematical Society, American Mathematical Society, Society of Petroleum Engineers (SPE) and Society of Petroleum Geophysicists (SPG), Fellow of the Institution of Engineers.
- Published and presented numerous papers and attended various National and International Conferences, forums and Seminars.
- Chairman, Dass Scientific Research Labs PL and Dass Oilfield Technologies PL
- Recipient of World Oil Award, SPE Regional Service Award, SPE President Award, ONGC Director/ Regional Director's Award , IIGP finalist, NASSCOM, CII, PALF, GIS, ICEBE Best Paper Award and many more
- Countries visited: USA(2), France(2), Netherland, Belgium, Germany, Cairo, China (3), Luxembourg, Switzerland, Qatar, Dubai(2), Abu Dhabi, Sharjah, Malaysia (4), Thailand(2), Singapore, Georgia, UK, Azerbaijan.
- Contact-email: [cdass01@gmail.com](mailto:cdass01@gmail.com) and Mobile - 9427030155

**WORKSHOP SCHEDULE:**

**Dates:-** 9<sup>th</sup> -10<sup>th</sup> -11<sup>th</sup> February 2017

**Timings:** - From morning 10:00 am to 5:00 pm followed by lunch and high tea breaks.

### PARTICIPANT'S ELIGIBILITY

1. Academic Faculties (including permanent/ adhoc / visiting / contractual / tenure based) working in colleges, universities, academic institutions etc. is eligible for the STC.
2. This is RUSA sponsored STC.
3. You need to pay Rs 1000/- as registration fee.
4. You will be paid TA & DA as per UGC norms
5. Each participant will get a certificate of participation from UGC HRDC, Gujarat University.

### HOW TO REGISTER?

Send Registration form by online submission using below mentioned link on or before **Monday, February 6th, 2017**. To fill it out, visit: <https://goo.gl/forms/bN6KrOuiF2v85lm92>. One has to complete the attached PDF form also duly signed and counter signed by Principal/ HODs.

### CERTIFICATE DISTRIBUTION

All participants of the three day workshop on '**Application of Technology in Teaching Mathematics**' will be awarded certificate of participation from UGC HRDC, Gujarat University

### VENUE

Conference Hall, Gujarat University, Navrangpura, Ahmedabad – 380 009, Gujarat, India.  
Phone : +91-079-26301341, +91-079-26300342/43 Fax : +91-079-26302654



UGC – Human Resource Development Centre  
Gujarat University, Ahmedabad – 380 009



**Application Form for RUSA Sponsored STC on  
Application of Technology in Teaching Mathematics  
(09-02-2017 to 11-02-2017)**

Pass – Port  
size  
Photograph to  
be pasted here

- Name (start with surname):

\_\_\_\_\_

- Designation : \_\_\_\_\_

- Subject : \_\_\_\_\_ Faculty\_\_\_\_\_

- Complete Address of the

\_\_\_\_\_ College/University

: \_\_\_\_\_

Telephone No. with STD Code:

\_\_\_\_\_

- University to which the college is affiliated : \_\_\_\_\_

- Residential : \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

- Telephone No. (STD Code): \_\_\_\_\_

- Mobile No. : \_\_\_\_\_

- Email ID : \_\_\_\_\_

• Birth Date : \_\_\_\_\_ : Age \_\_\_\_\_ Years

• Sex : Male/Female

• Whether SC / ST / OBC / OPEN :

\_\_\_\_\_

• Whether Belong to minority : Yes/No

• Do you Need Accommodation? : Yes / No

• Enclosed DD No. \_\_\_\_\_ Dated \_\_\_\_\_ of Rs. 1000/- in favour of

“Director, HRDC, Gujarat University, Ahmedabad.”

• My Bank Details As Under for TA – DA Amount:

• Bank Name: \_\_\_\_\_ Bank Branch Name: \_\_\_\_\_

A/c No.: \_\_\_\_\_ IFSC Code: \_\_\_\_\_

• Whether your Institute is recognized \_\_\_ /unrecognized\_\_\_ under 2(F) by UGC.

• Whether your Institute is covered \_\_\_ / uncovered \_\_ under 12(B) by UGC.

• The particulars given above are correct and I accept full responsibility for the same.

Date:

Signature

Signature with Stamp of the

Principal/HOD

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