JSPMs
BHIVARABAI SAWANT INSTITUTE OF TECHNOLOGY AND RESEARCH,
WAGHOLI, PUNE
(APPROVED BY AICTE , NEW DELHI, GOVT.OF MAHA & AFFILIATED TO PUNE UNIVERSITY)
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PROF. T.J.SAWANT
FOUNDER SECRETARY

DR. T.K.Nagaraj
PRINCIPAL

Report on
Faculty Development Programme
On
"Geometric dimensioning and Tolerances" Organized by Department of Mechanical Engineering"

at
Department of Mechanical Engineering Bhivarabai Sawant Institute of Technology & Research Wagholi, Pune

Name of The Programme	**Faculty Development Programme "Geometric dimensioning and Tolerances"**
Date	17th April 2023 to 22nd April 2023
Mode	Online
Organizer	Department of Mechanical Engineering Bhivarabai Sawant Institute of Technology & Research Wagholi, Pune
Programme Convenor	Dr. Arun Patil, Dean Acad (BSIOTR)
Programme Co-Convenor	Dr.P.S.Kachare,HOD Mech(BSIOTR)
Programme Co-Ordinator	Asst. Prof. A.M.Salve (MECH) Asst. Prof.A.V.Talape (MECH))
Participants	50 Participants

The FDP aimed to enhance the professional and personal skills of faculty members to facilitate their overall personal and institutional development. The program was attended by than 50 faculty members from various institutes. The Programme also intendsto develop the knowledge of participants in the relevant field for inculcating learning values in students and guiding and monitoring their progress.

FDP Objective:

Sr. No.	FDP Objective
1	This FDP provides a platform to learn basics of Geometric dimensioning and Tolerances.
2	An ability to study the basics of Datum features, profile control, tolerance a analysis, runout control, composite control and inspection and measurement. Along with practice exercises.
3	An ability to understand techniques and tools for measuring and verifying GD&T tolerances.

FDP Brochure:

INSTITUTE

VISION: Satisfy the aspirations of youth force, who want to lead nation towards prosperity through techno-economic development

MISSION: To provide, nurture and maintain an environment of high academic excellence, research and entrepreneurship for all aspiring students, which will prepare them to face global challenges maintaining high ethical and moral standards.

CHIEF PATRON

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Founder Secretary, JSPM & TSSM Group of Institutes, Pune
Cabinet Minister (Health & Family Welfare)
Govt. of Maharashtra

Hon. Mr. Rushiraj Sawant,

Director, JSPM and TSSM, Pune

Hon. Mr. Giriraj Sawant,

Director, JSPM and TSSM, Pune

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- Dr. T.K.Nagaraj, Principal, BSIOTR, Pune

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- Dr. Pramodkumar, Jiangxi University, China
- Dr. P.Vasu, Fedral Institute, Ethiopia
- Dr. S. Takale, Scientiest, BAARC

Convener

- Dr. Arun Patil, Dean Acad, BSIOTR

Co-Convener

- Dr. P.S.Kachare, HOD Mech, BSIOTR

Coordinators

- Prof. A.M.Salve, 98817 61366
- Prof. A.V.Talape, 90288 79278

Organizing Committee

- Prof. P.V.Jatti
- Prof. V.R.Mohite
- Prof. P.G.Patil, 98607 31617
- Prof. V.A.Patil, 82375 67041
- Prof. M.S.Devadhe, 88302 37729
- Dr. A.D.Pingale

ABOUT US

The Institute was established in 2009 under the banner of Jayawant Shikshal Prasark Mandal. It is approved by AICTE, New Delhi, DTE, and Government of Maharashtra and is affiliated to Savitribai Phule Pune University. The institute is one of the progressive and developing Engineering College of JSPM Group of Institutes in Pune. The Institute has modern, state-of-the-art infrastructure appropriate to conduct engineering education and runs 05 under graduate (UG) programs and 02 post- graduate (PG) programs in Engineering. It has well qualified, experienced and doctorate faculties in all disciplines, engaged in teaching and research. College laboratories have modem equipment and experimental setups. Besides conventional teaching, college puts special emphasis on e-based learning and subject-oriented advanced inputs.

About the Department:

The Department of Mechanical Engineering was established in 2009 with an intake of 60 students. Present intake capacity of Mechanical Engineering for UG courses is 120. The goal of the Department is to train the students to face the challenges of ever changing technology and maintaining high ethical and moral standards. The Department organizes the workshops and seminars on advance technology for the students & Faculty. In addition to this the expert lectures from senior academicians and industrialists are organized for our students. The Departmental advisory committees consisting of well-known academicians and experts from industry, guides the departments in their academic activities.

Registration Fee

For JSPM & TSSM Faculty :- Free
Faculty & Research Scholars :- Rs. 200/
Industry Participants : Rs. 250/

Payment details:

The registration fee is to be paid in the form of DD/online transfer/QR using the following details:

- Demand Draft: *In favor of "JSPM Bhivarabai Sawant Institute of Technology & Research" payable at any bank in Pune.*
- Online Transfer Details:

Account Name: *JSPM Bhivarabai Sawant Institute of Technology & Research*
Account No: *36000201021l063*
IFSC: *UBIN0536008*

- QR Code:

Important dates:

Last date for Registration: 15th April, 2023.
Course dates: 17-21, April 2023.

For Online Registration:

https://forms.gle/9NrcWYNfaueX6hAdA

Whatsapp group link:

https://chat.whatsapp.com/liwjnOm6zI7CKr2cY9EADH

RESOURCE PERSON

ASHFAQUE ALAM SIDDIQUI
Technical Director
Silhouettez

ABOUT FDP

In this world of emerging technology, the product should be very precise and of high quality. To manufacture a quality product, engineering drawings should be accurate and communicate precisely. GD & T, is a symbolic language used in engineering drawings to define the allowable deviation of feature geometry. GD & T consists of dimensions, tolerances, symbols, rules and conventions that are used to communicate precisely the functional requirement of design model. GD & T elicits functionality, cost effectiveness, producibility, ease of inspection and many other factors of manufacturing and inspection. GD & T standards are ASME Y14.5-2009 and ISO 1101:2012. GD & T is inbuilt in present Computer Aided Drafting software that requires the subject matter expert to design the drawings. It is to be noted that, GD & T is helpful to excel in an industry. The inclusion of this topic in the curriculum would benefit the students a lot. In this context, a faculty development program on "GD & T" is designed to fill the gaps and strengthen the participants with required skills. The participants/learners will be provided with exercises and case studies to improve their understanding. It allows the learners to develop accurate drawings that would result in better product design and manufacturing.

Contents of the course:

- 1. Introduction to GD&T, Terminology, drafting Symbols, Dimensioning Styles, Rules and Concepts of GD&T
- 2. MMC, LMC, RFS and FCF
- 3. Datums (Planar, Axis and Centre Plane)
- 4. Bonus Tolerance
- 5. Virtual Condition
- 6. Resultant Condition Boundaries
- 7. Form Control, Orientation Control & Location control
- 8. Tolerance of Position
- 9. Runout and Profile Controls
- 10. Fixed and Floating Fastener
- 11. Projected Tolerance Zones & Part Tolerancing 12. Tolerance Analysis and Stack-up analysis
- 13. FAI, Paper Gauging and Functional Gauging

JSPM's
Bhivarabai Sawant Institute of Technology & Research
NAAC Accredited & NBA Accredited - IT, E&TC & Electrical Departments
Gat No: 720/2, Nagar Road, Wagholi, Pune, Maharashtra 412207
020 - 67335100, Fax: 020 - 67335108
Portal: https://jspmbsiotr.edu.in

NATIONAL LEVEL

6 DAYS FDP ON GD & T

(GEOMETRIC DIMENSIONING & TOLERANCES)

SLOF: SIZE, LOCATION, ORIENTATION, AND FORM.

DURATION 17-22 APRIL 2023

IN ASSOCIATION WITH

ORGANIZED BY

DEPARTMENT OF MECHANICAL ENGINEERING

Registration Form

1. Name :
2. Designation :
3. Institution/Industry :
4. Email:
5. Mobile No:
6. DD/Ref No:

Bank: Date:

Amount:

7. Address for Correspondence:
8. Educational Qualification:
9. Experience (in years):

Place: Date:

Signature of the Applicant

Declaration The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the Coordinator in case, I am unable to attend the course.

JSPM's
Bhivarabai Sawant Institute of Technology & Research

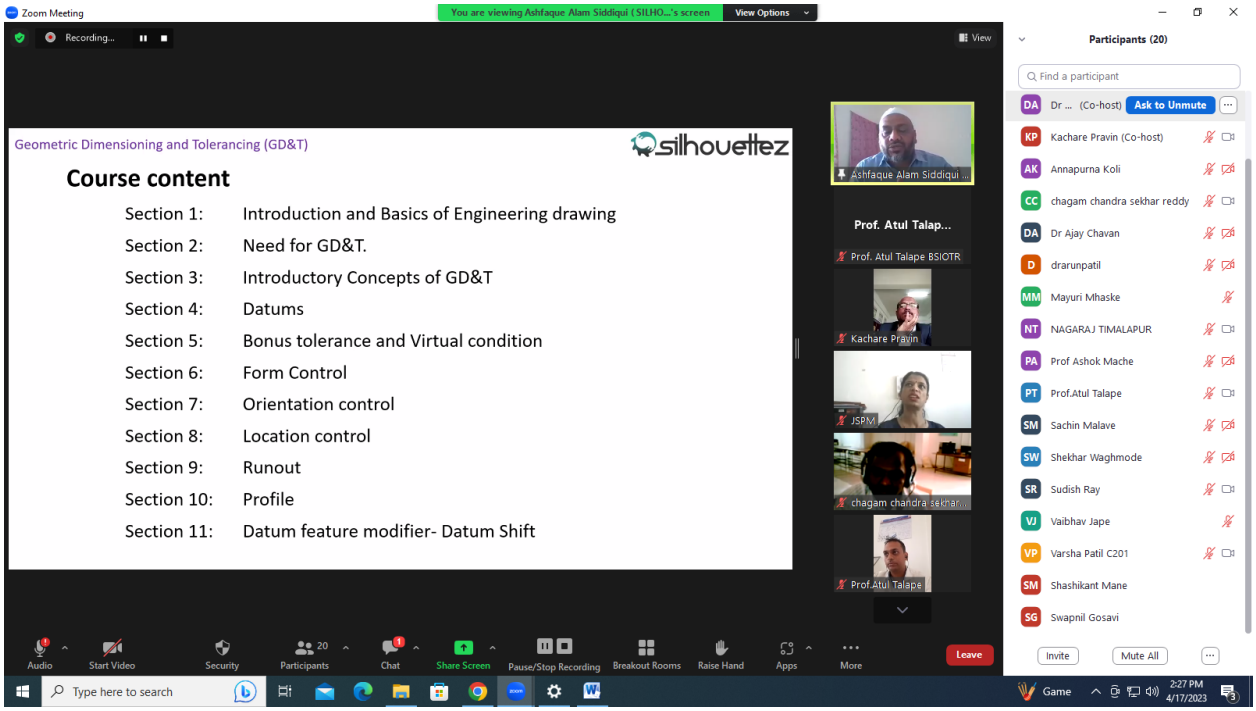
Inaugural Session:

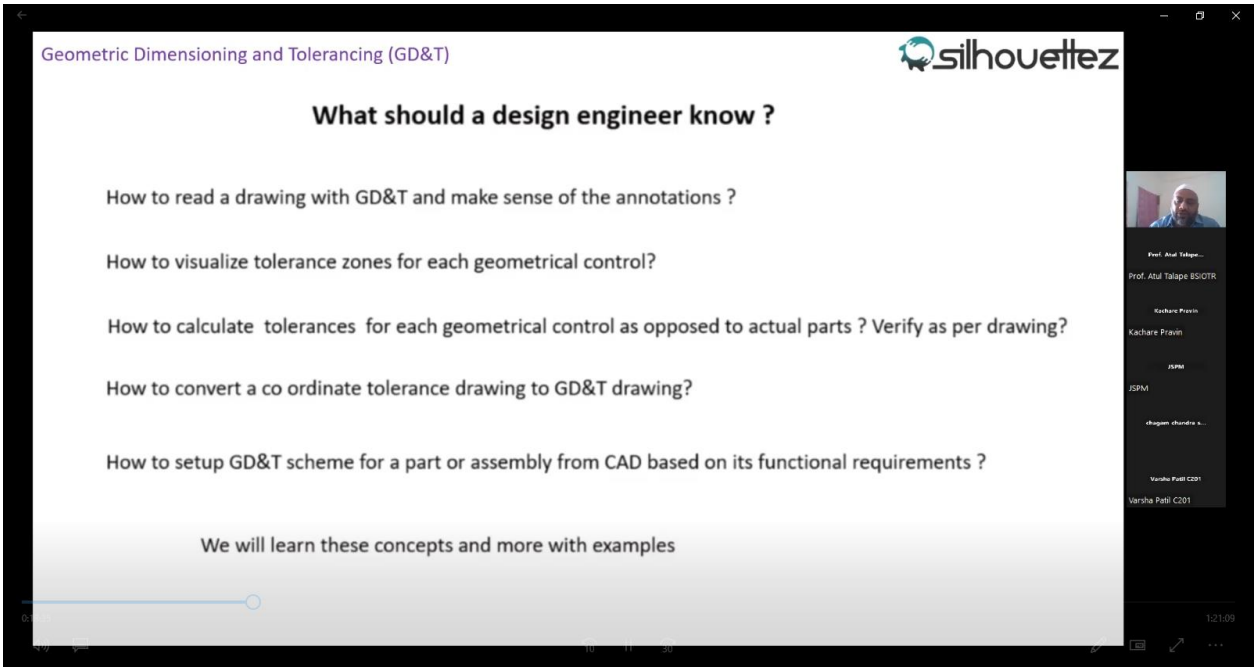
Inaugural Session	
Date	**17th April 2023**
Time	**2:00 PM to 2.30 PM**

The esteemed personalities present on the inauguration of the Programme:

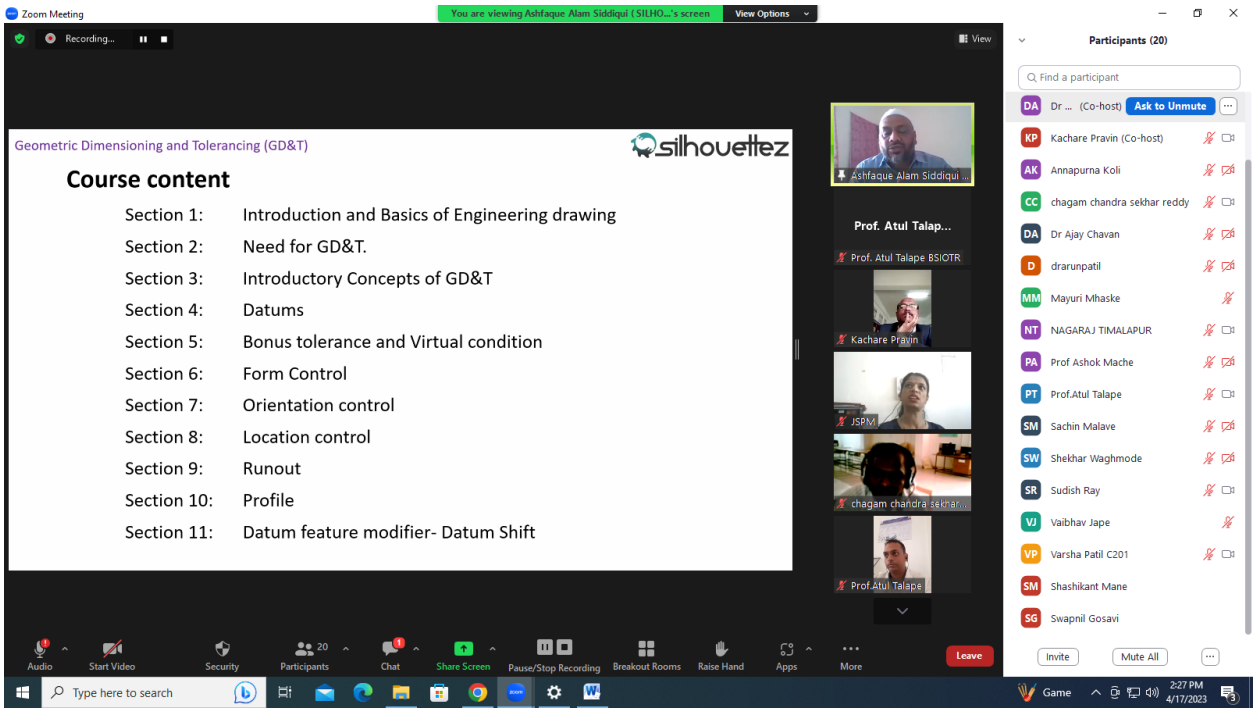
Mr.Ashfaque Siddique	Technical Director.Silhouettez	Resource Person
Dr. Arun Patil	Dean Acad (BSIOTR)	Host
Dr. T.K. Nagaraj	Principal, BSIOTR	Host
Dr.P.S.Kachare	HOD,Mechanical	Host

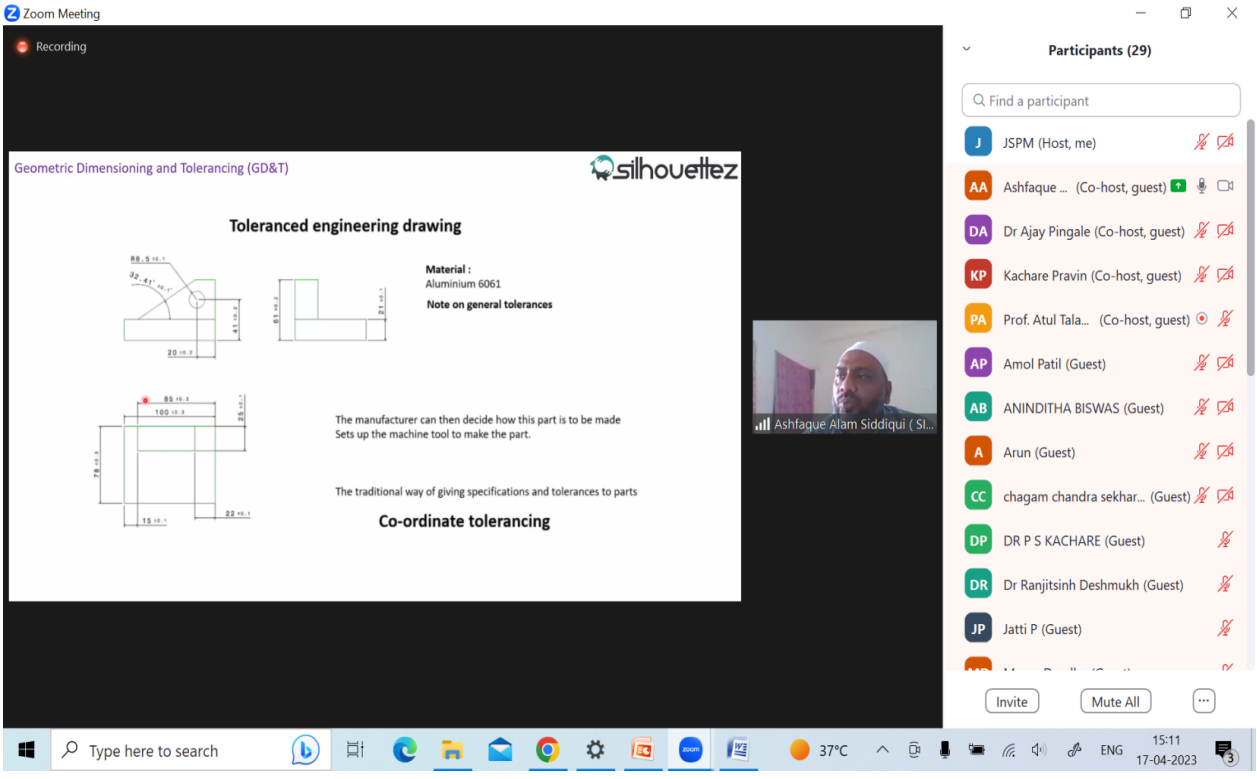
In welcome speech, The FDP started with the inauguration ceremony. The program was started by Prof.Salwe A.M. with introduction to FDP .The H.O.D. of Mechanical engineering dept.Dr.P.S.Kacahre gave the welcome address and inaugurated the program.Prof.Salwe A.M.introduced a Key note speaker Mr.Ashfaque Siddique. The keynote speaker gave an insightful talk on the importance of this faculty development and how it could benefit the participants. He has conducted session on form controls.The day was closed by Prof.Salwe A.M.





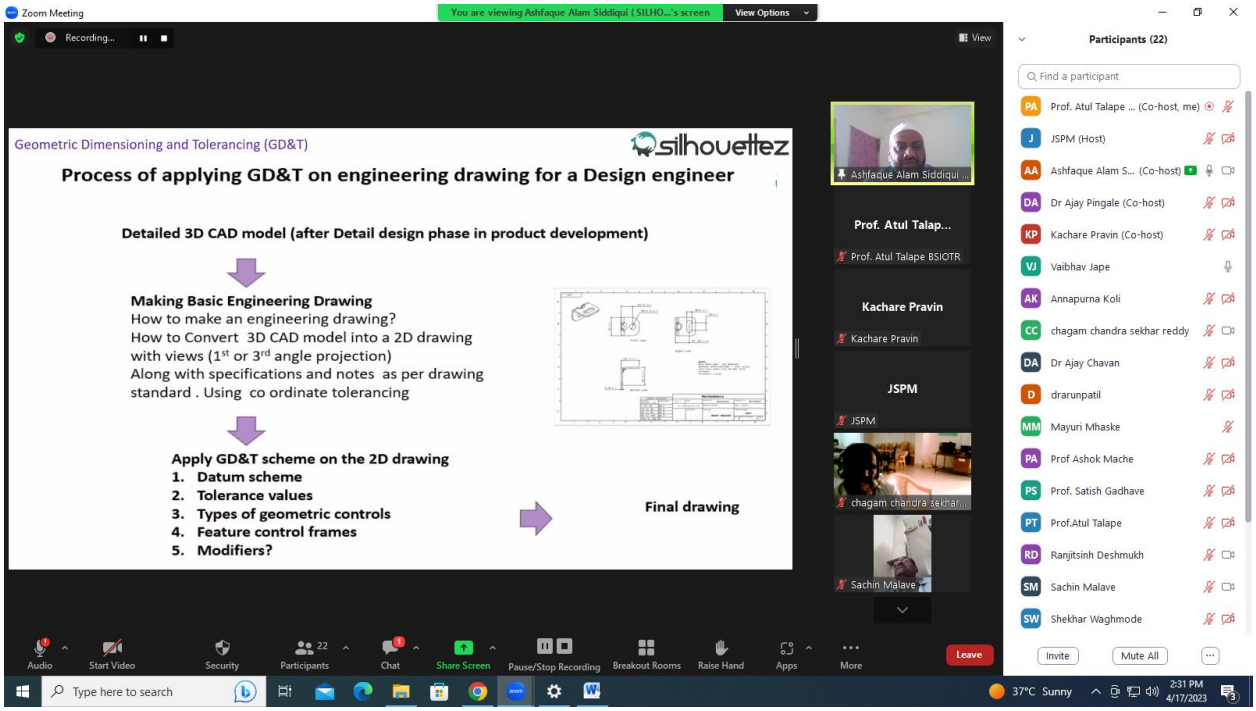
Date	**17th April 2023**
Session	**One**
Topic	**Introduction to GD&T,Terminology, Dimensioning styles ,Drafting symbols**
Resource Person	**Mr.Ashfaque Siddique, Technical Director.Silhouettez**
Time	**2:00 PM To 3:15 PM**

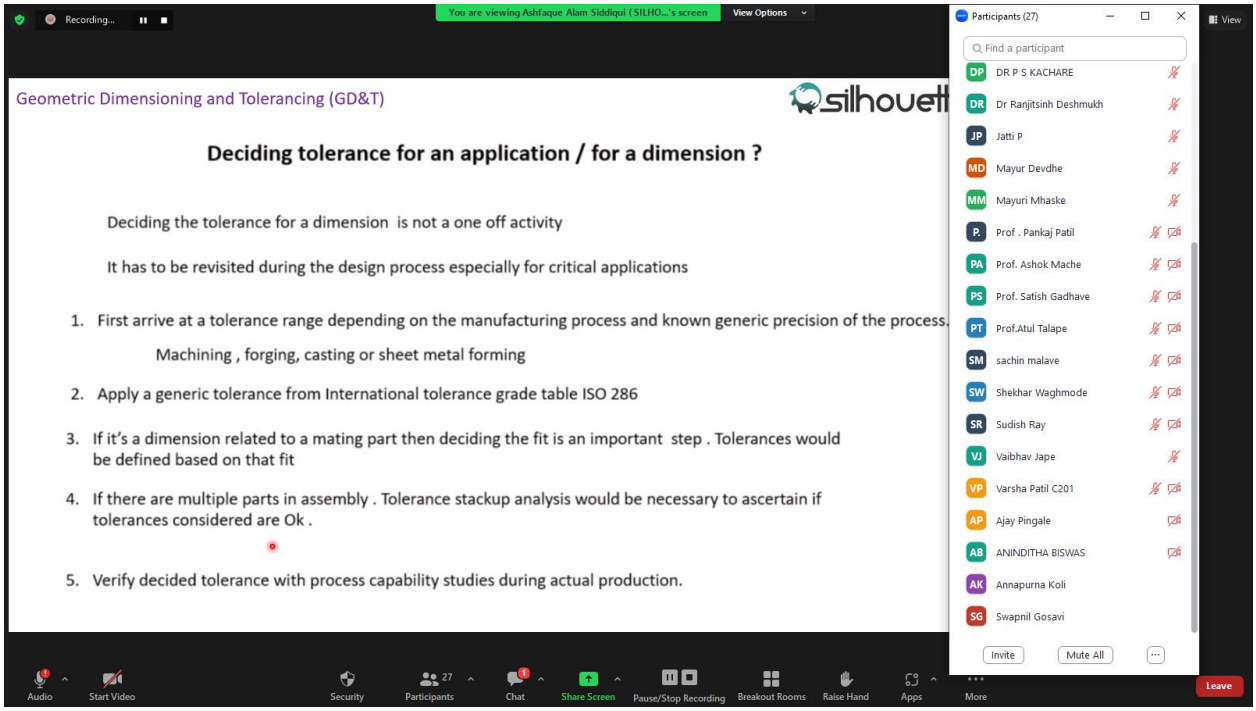




Mr.Ashfaque Siddique has delivered an interactive lecture on “Introduction to GD&T,Terminology”. In this session participants were learned the basics of GD&T, importanace and need of GD&T,

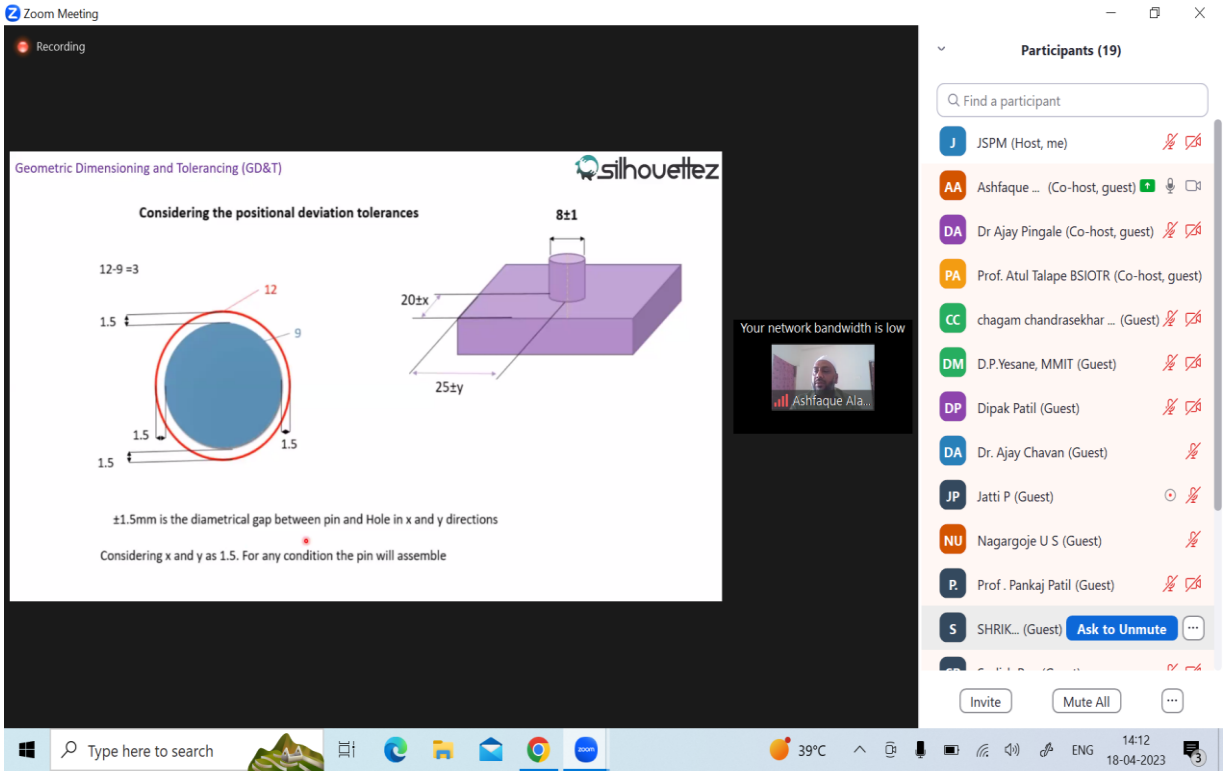
Date	**17th April 2023**
Session	**Two**
Topic	**Form controls, Rules and concepts of GD&T,**
Resource Person	**Mr.Ashfaque Siddique, Technical Director.Silhouettez**
Time	**3:00 PM To 4:15 PM**

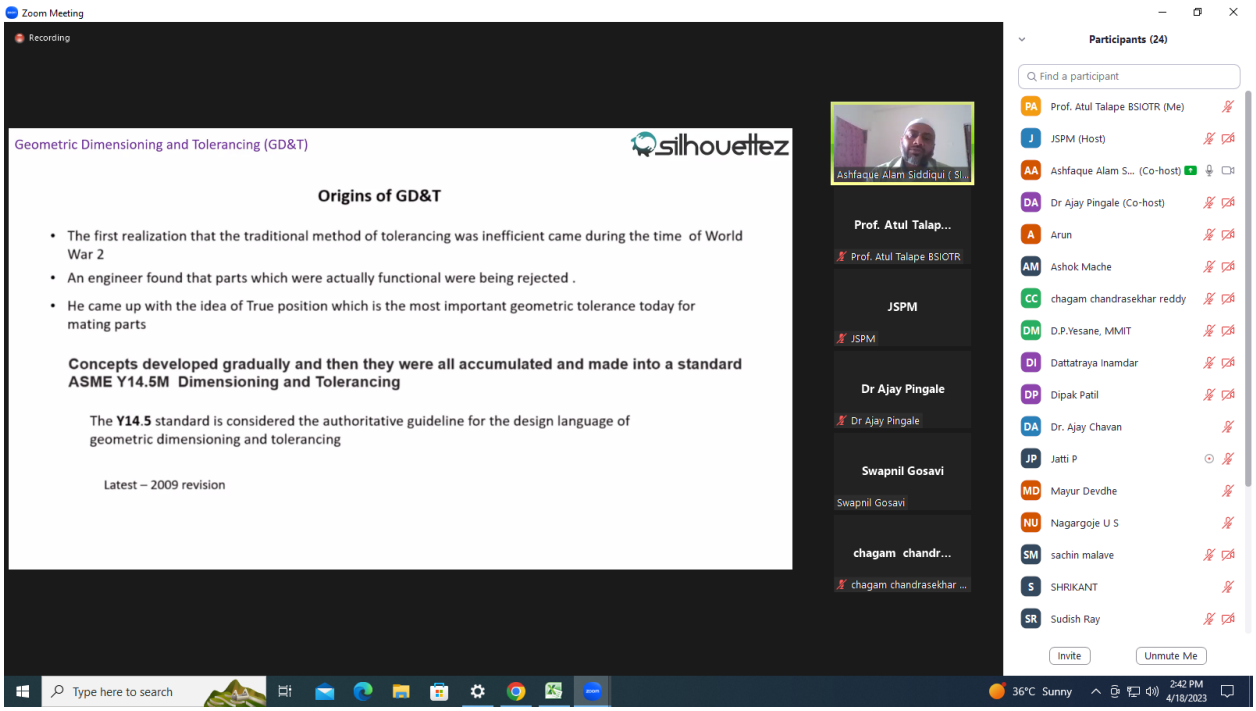




Mr.Ashfaque Siddique has delivered an interactive lecture on "Form controls Rules and concepts of GD&T," along with practice exercise for participants. In this session participants were learned the different Form controls like straightness, flatness, roundness, circularity, cylindricity along with practice exercise.

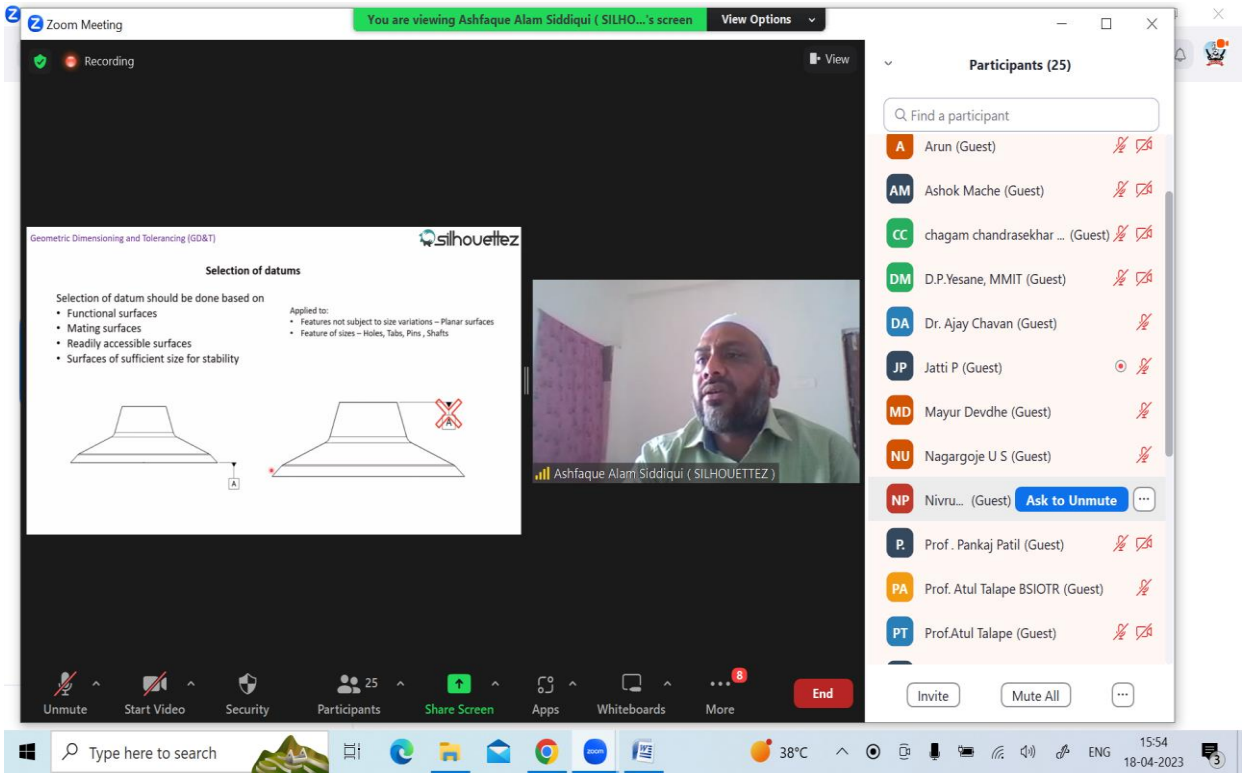
Date	**18th April 2023**
Session	**One**
Topic	**Orientation controls**
Resource Person	**Mr.Ashfaque Siddique, Technical Director.Silhouettez**
Time	**2:00 PM To 3:10 PM**

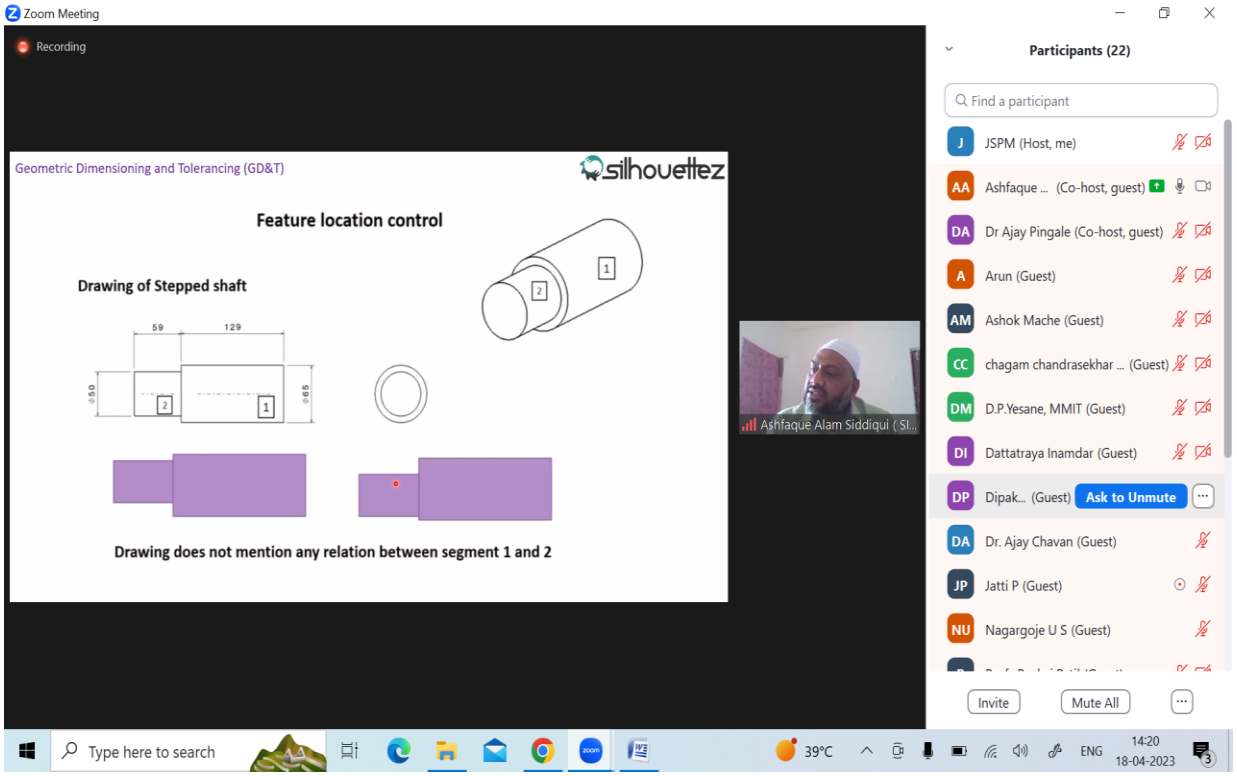




Mr.Ashfaque Siddique has delivered an interactive lecture on "Orientation controls" along with practice exercise for participants. In this session participants were learned the different Orientation controls like perpendicularity,parallelism,angularity with practice exercise.

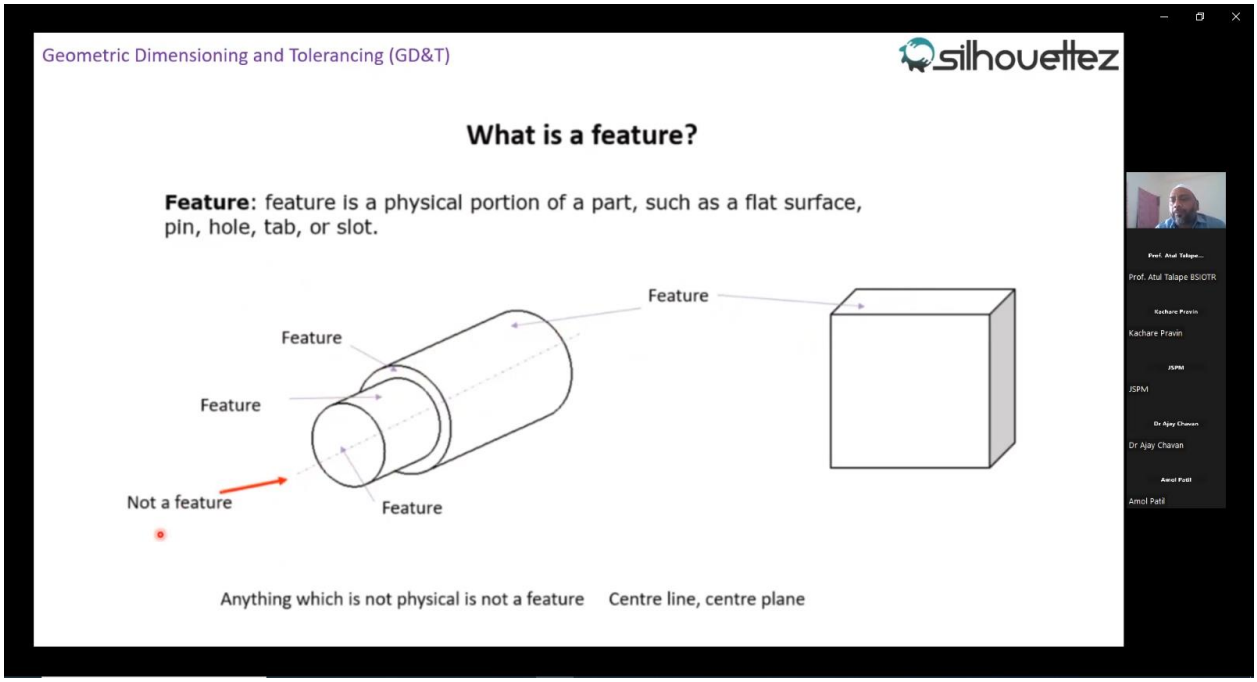
Date	**18th April 2023**
Session	**Two**
Topic	**Datum features and Datum reference frames**
Resource Person	**Mr.Ashfaque Siddique, Technical Director.Silhouettez**
Time	**3:15 PM To 4:15 PM**

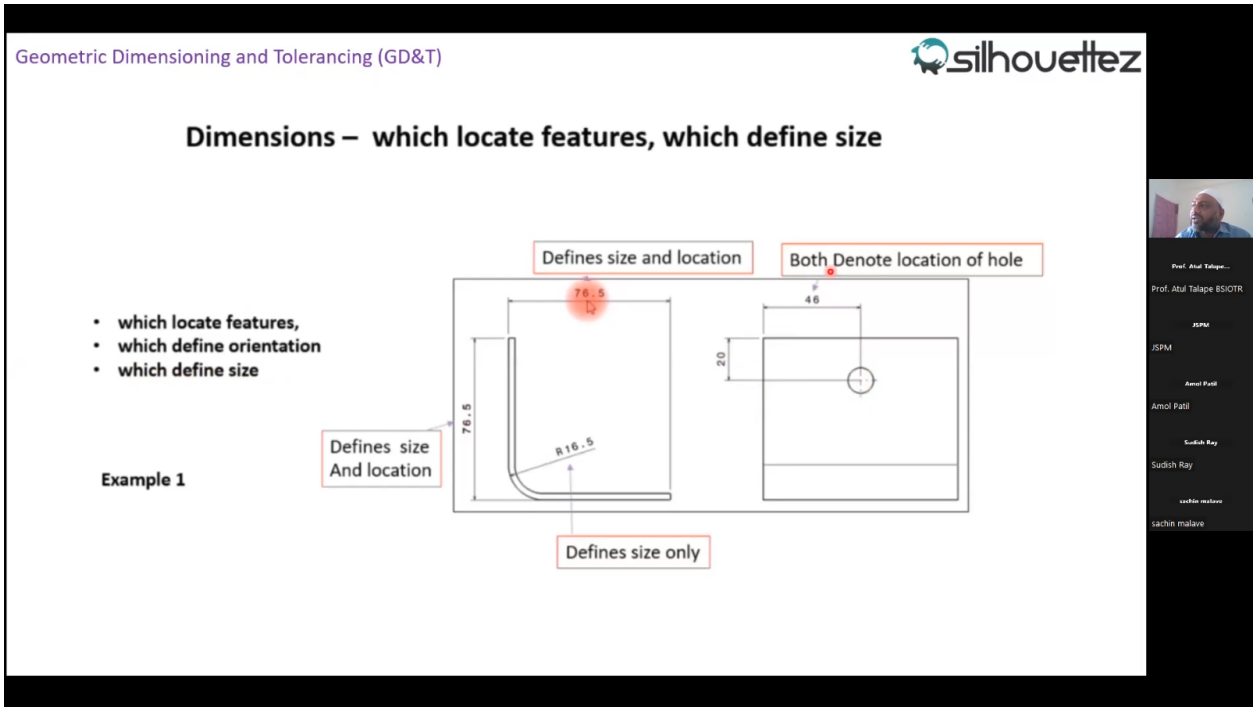




Mr.Ashfaque Siddique has delivered an interactive lecture on "Datum features and Datum reference frames" along with practice exercise for participants. In this session participants were learned how to use Datum features and Datum reference frames with practice exercise.

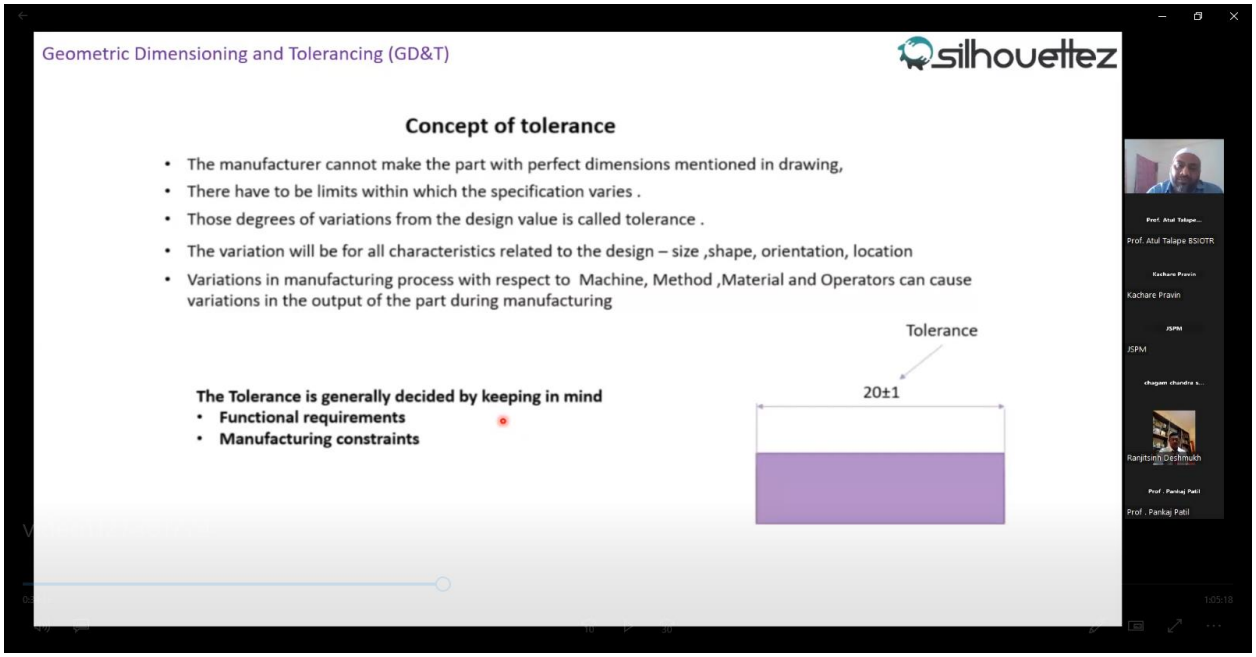
Date	**19th April 2023**
Session	**One**
Topic	**Profile controls**
Resource Person	**Mr.Ashfaque Siddique, Technical Director.Silhouettez**
Time	**2:00 PM To 3:10 PM**

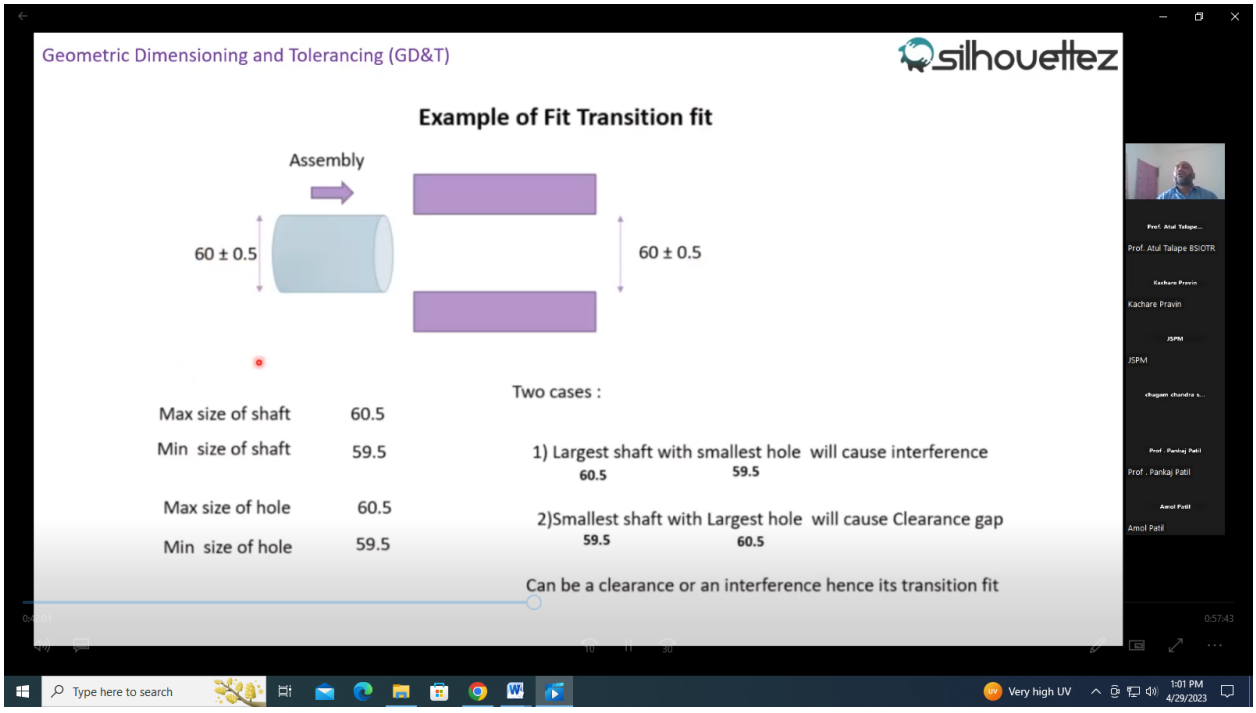




Mr.Ashfaque Siddique has delivered an interactive lecture on “Profile controls” along with practice exercise for participants. In this session participants were learned different Profile controls,profile of a line and profile of a surface with practice exercise.

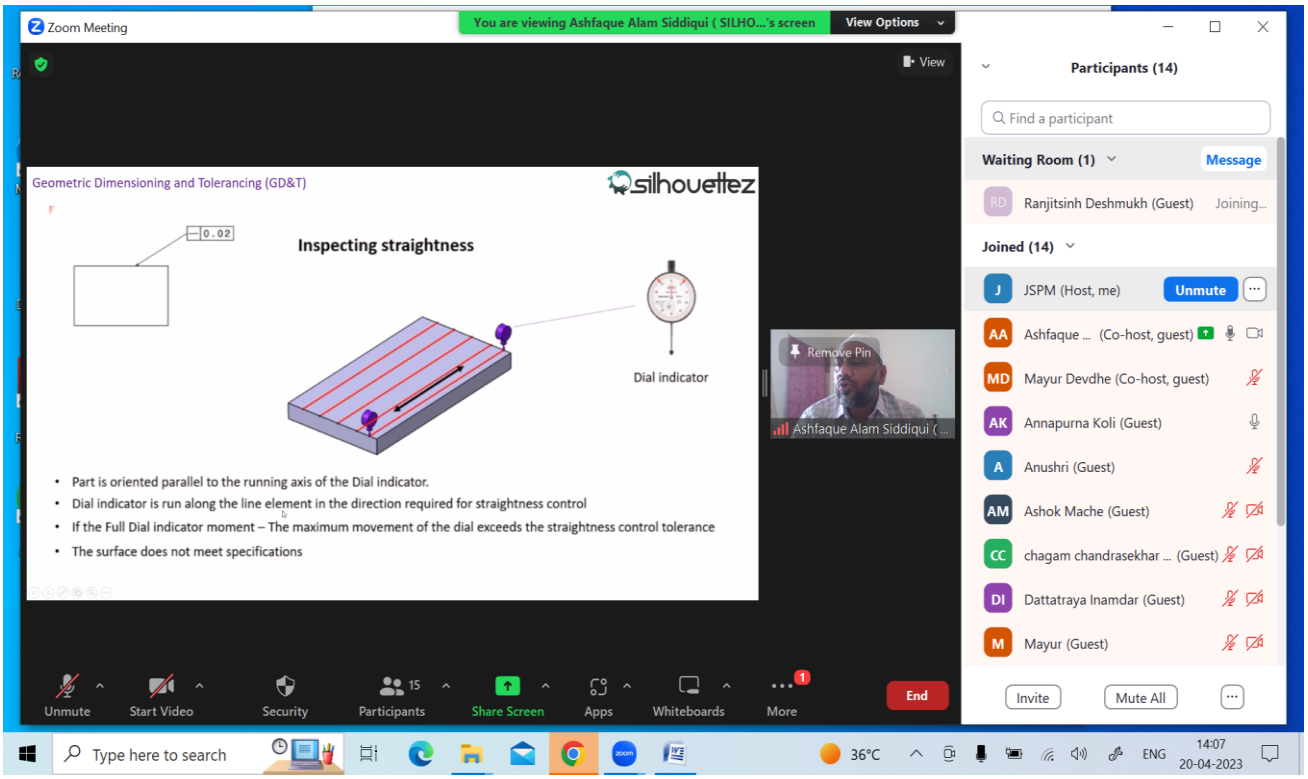
Date	**19th April 2023**
Session	**Two**
Topic	**Tolerence Analysis**
Resource Person	**Mr.Ashfaque Siddique, Technical Director.Silhouettez**
Time	**3:10 PM To 4:10 PM**

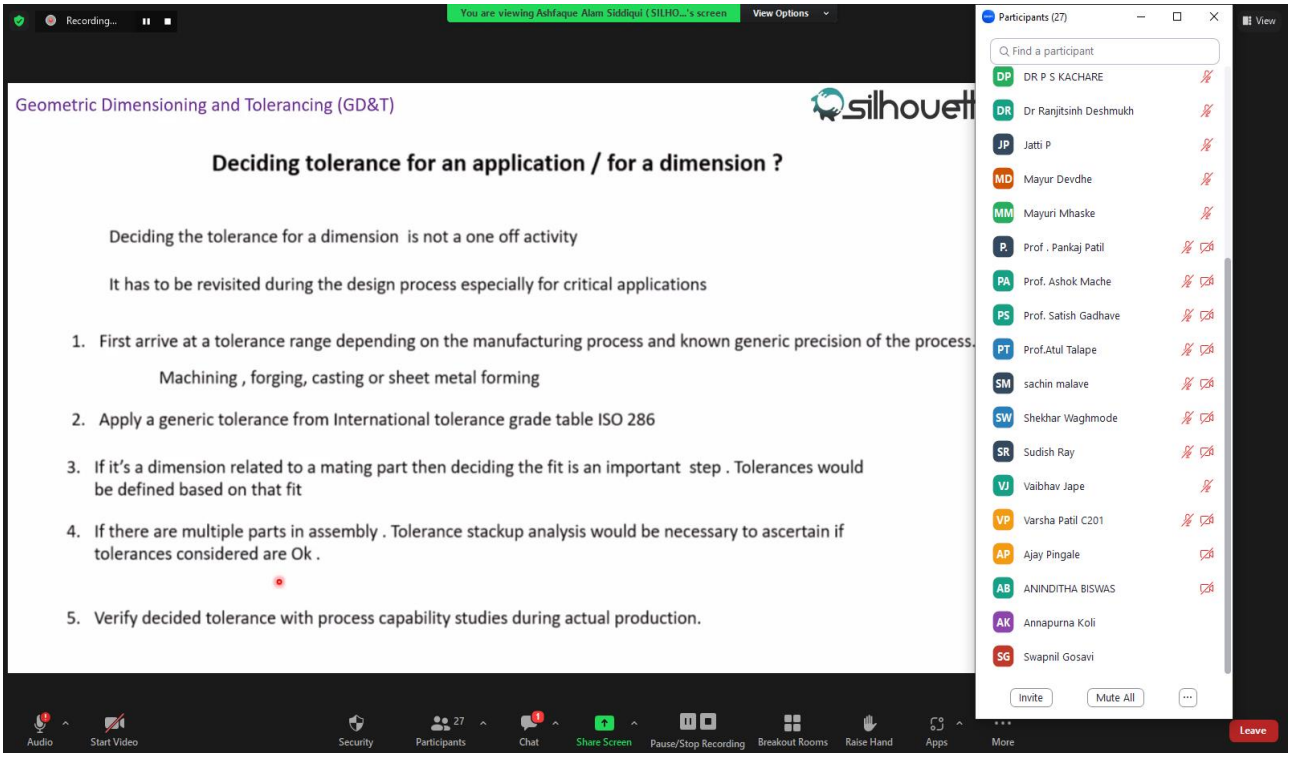




Mr.Ashfaque Siddique has delivered an interactive lecture on “Tolerence Analysis” along with practice exercise for participants. In this session participants were learned how and why tolerance analysis is done with practice exercise.

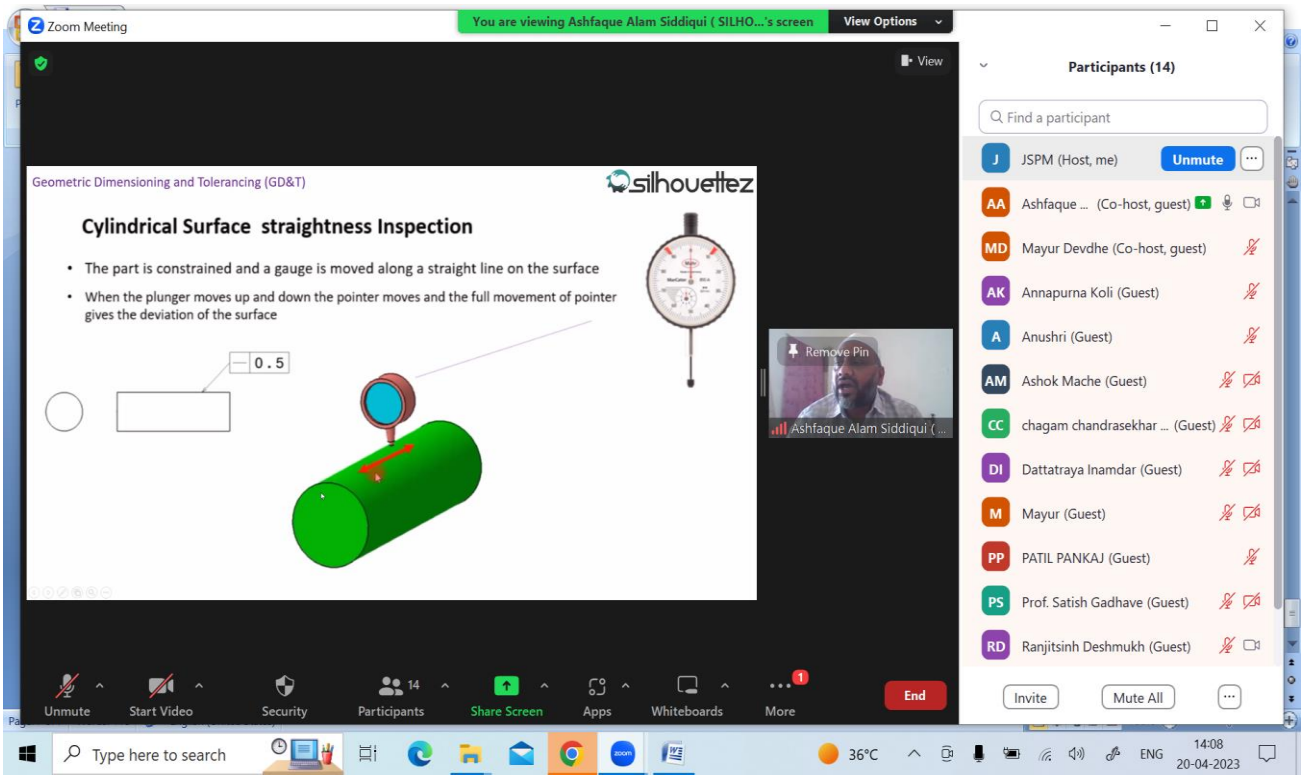
Date	**20th April 2023**
Session	**One**
Topic	**Runout controls**
Resource Person	**Mr.Ashfaque Siddique, Technical Director.Silhouettez**
Time	**2:00 PM To 3:10 PM**

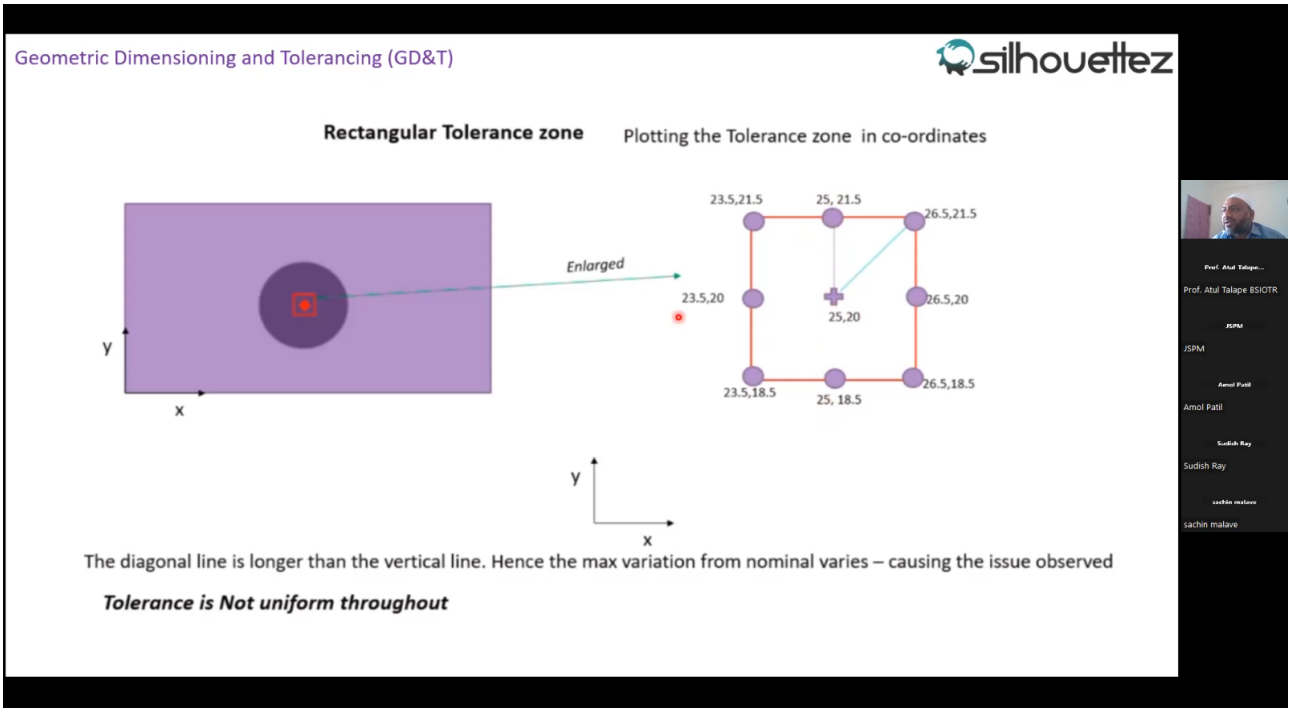




Mr.Ashfaque Siddique has delivered an interactive lecture on "runout controls" along with practice exercise for participants. In this session participants were learned about different runout controls like Total runout and circular runout, concentricity and symmetry with practice exercise.

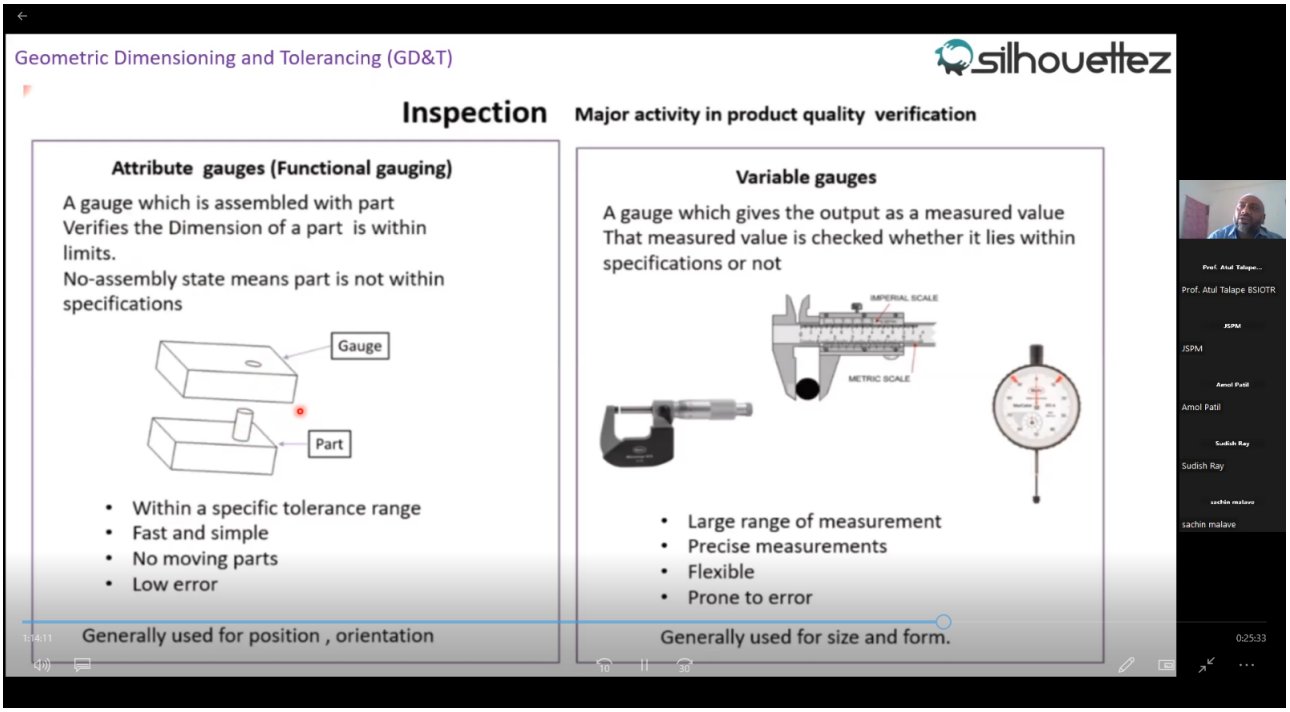
Date	**20th April 2023**
Session	**Two**
Topic	**Composite controls**
Resource Person	**Mr.Ashfaque Siddique, Technical Director.Silhouettez**
Time	**3:10 PM To 4:10 PM**

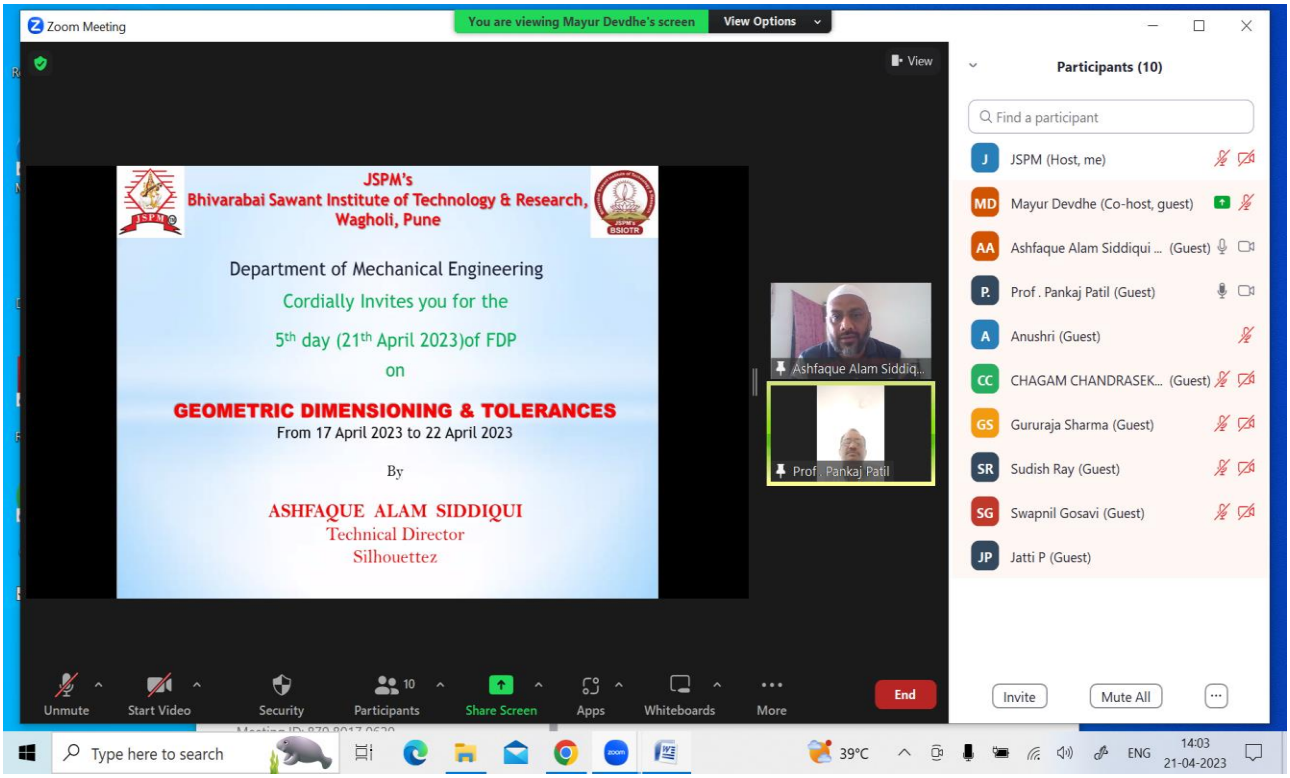




Mr.Ashfaque Siddique has delivered an interactive lecture on "composite controls" along with practice exercise for participants. In this session participants were learned about composite controls with practice exercise.

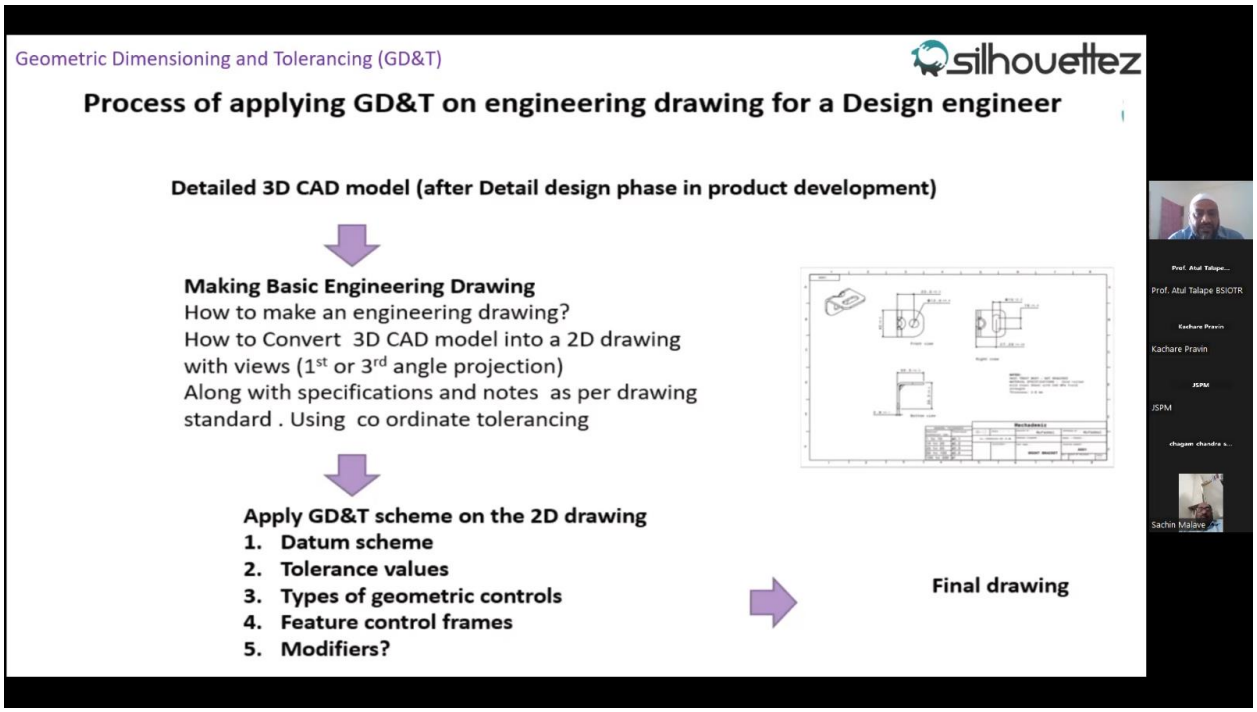
Date	**21th April 2023**
Session	**One**
Topic	**Inspection and Measuremnets**
Resource Person	**Mr.Ashfaque Siddique, Technical Director.Silhouettez**
Time	**2:00 PM To 3:10 PM**

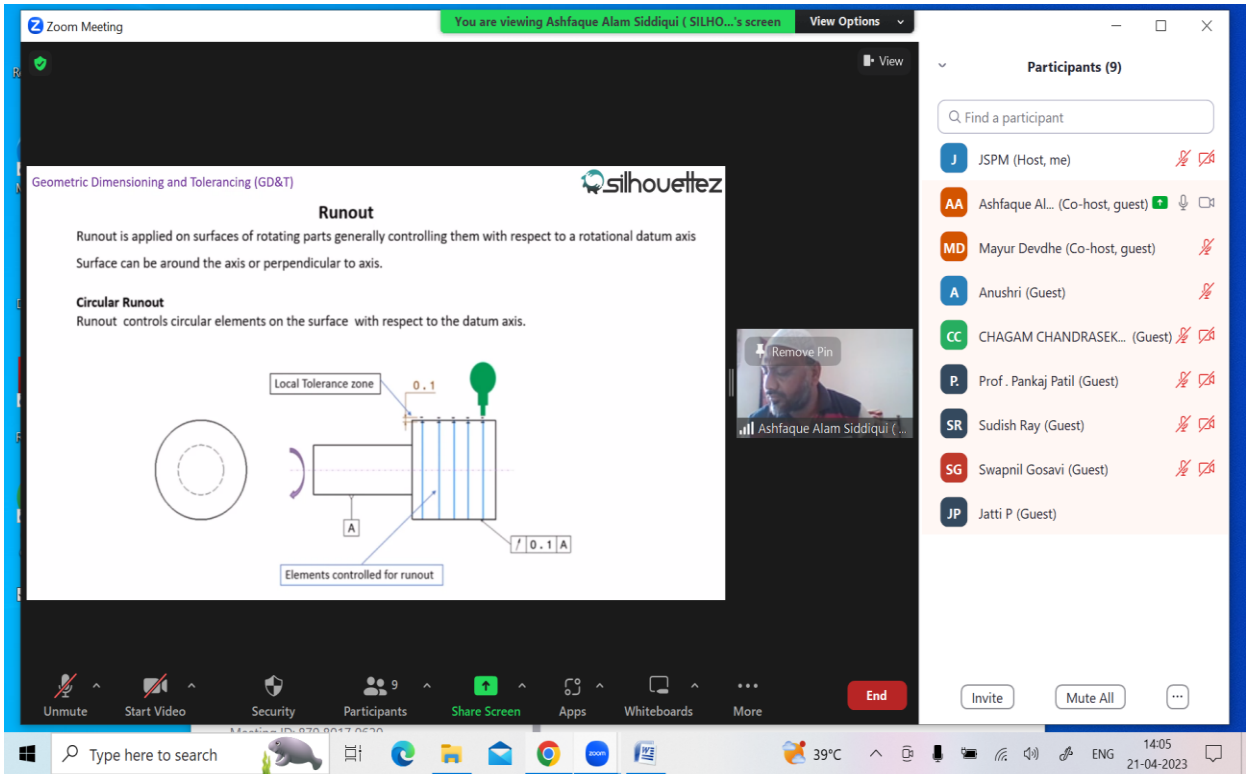




Mr.Ashfaque Siddique has delivered an interactive lecture on "Inspection and measurements and its techinques and tools for measuring and verifying GD&T tools" along with practice exercise for participants. In this session participants were learned about different inspection and measurement techinques and tools used for inspection and measuring and how to verify with practice exercis

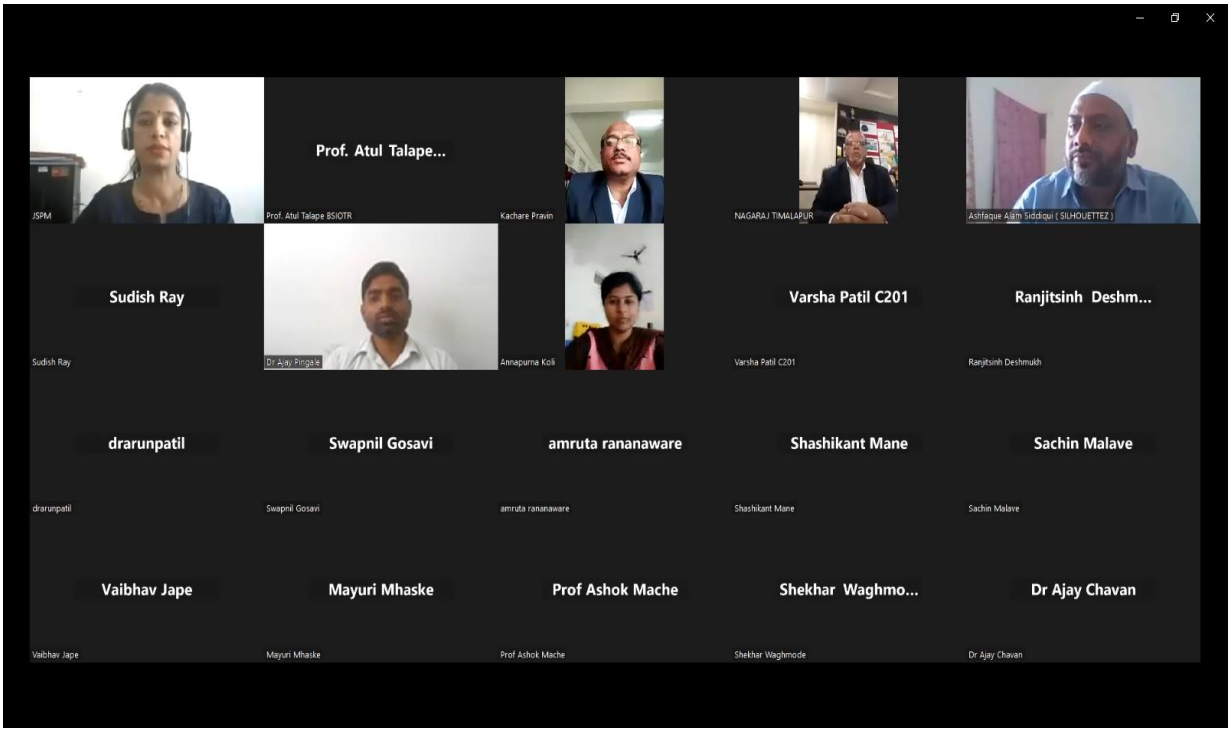
Date	**21th April 2023**
Session	**Two**
Topic	**Review of all GD&T concepts and priciples**
Resource Person	**Mr.Ashfaque Siddique, Technical Director.Silhouettez**
Time	**3:15 PM To 4:30 PM**





Mr.Ashfaque Siddique has reviewed all GD&T concepts and principles and discuss with participants regarding questions, doubts and clarify concepts in GD&T.

Valedictory Session:



Valedictory Session	
Date	**22 April 2023**
Time	**2:00 PM**

The esteemed personalities present on the Valedictory of the Programme:

Dr. P.S.Kachare	HOD,Mechanical Department,BSIOTR	HOD
Dr.A.G.Patil	Dean,BSIOTR	Host
Mr.Ashfaque Siddique	Technical Director.Silhouettez	Resource Person

All the personalities appreciated the department for organizing the FDP. The program evaluation and feedback session was done by Prof.P.V.Jatti . The FDP ended with a valedictory session done by Prof.Dr.Arun Patil.
The program was ended withvote of thanks by Prof.V.A.Patil., Asst. Prof., Mechanical Dept., JSPM'S BSIOTR & Coordinator of the FDP. The FDP received a lot of positive feedback from faculty members,from many universities of India. There were 50 enthusiastic participants in total, who took part in the 6-day online FDP. Each session was of Minimum 60 minutes & Maximum 90 minutes and included open questions, answer session. Join Zoom Meeting https://us02web.zoom.us/j/88513120108?pwd=aXNIeHR1RFBLem1SME9JVDN2RFlsZz09; feedback links were shared, MCQ Test was conducted at the end of FDP. The registered participants were engaged in a special WhatsApp group. The recordings are being uploaded on the Google Drive.50 E-certificates were awarded to all registered participants.

Sample FDP Certificate:

FDP Outcome:

All the sessions were very much informative. The discussed areas are of great benefit for the participants as the topics match with the current working domain. Participants were enlightened with the most widely used advance technologies in this domain. This in turn will help in industrial activity.

Sr. No.	FDP Outcome
1	Understand basic concepts of GD&T and principles.
3	Understand Orientation controls and Datum Feature and Datum reference frame.
2	Analyze tolerance and different profile controls.
4	Understand runout controls and composite controls.
5	Study of different techniques and tools for measuring and verifying GD&T tools

Sr. No.	FDP Outcome	PO	PSO
1	Understand basic concepts of GD&T and principles.	PO1	PSO1
2	Understand Orientation controls and Datum Feature and Datum reference frame.	PO1	PSO1
3	Analyze tolerance and different profile controls.	PO2	PSO2
4	Understand runout controls and composite controls.	PO1	PSO1
5	Study of different techniques and tools for measuring and verifying GD&T tools	PO2, PO3, PO4, PO5	POS3

Programme Co-Ordinator	Asst. Prof. A.M.Salve (MECH)	
	Asst. Prof.A.V.Talape (MECH))	
Programme Convenor	Dr. Arun Patil, Dean Acad (BSIOTR)	
Programme Co-Convenor	Dr.P.S.Kachare,HOD Mech(BSIOTR)	
Principal	Dr. T. K. Nagaraj, Principal, (BSIOTR)	