How to Deliver a Good Technical Presentation
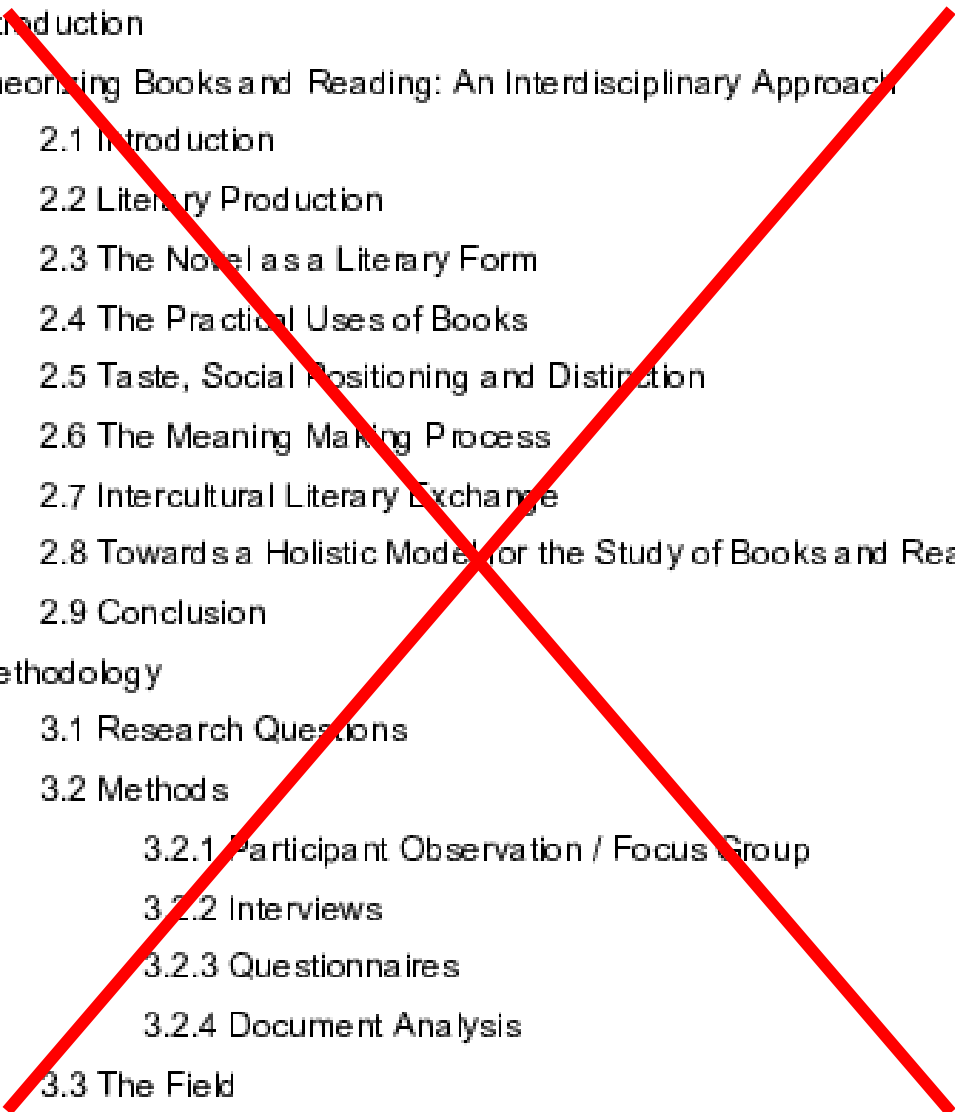
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Kaustubh Dasgupta

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Centre for Disaster Management and Research
Indian Institute of Technology Guwahati

Outline

- **Introduction**
- **Preparation**
- **Contents**
- **Delivery**
- **Closure**

Introduction

Presentation and Public Speaking

- **Levels and Purpose**
  - 1 to 1 :: Inter-personal skills
  - 1 to Few :: Presentation skills
  - 1 to Many :: Art of public speaking

- **Language**
  - Verbal or non-verbal (Signs and Gestures)

- **Speaker-listener interaction**
  - Temperament (Moods and Emotions)
  - Body language (Postures and Gestures)
  - External appearance (Formal, Casual or Dirty)

- **Articulation**

  There is light at the end of the tunnel for India, but it's that of an oncoming train which will run over them.

  The way Indian wickets are falling reminds of the cycle stand at Rajendra Talkies in Patiala one falls and everything else falls!

  - Clarity
  - Eloquence
  - Voice training

  The ball whizzes past like a bumblebee and the Indians are in the sea.

  - Impromptu Improvisation

- **Body language**
  - Posture
  - Gesture
  - Eye contact
  - Facial expressions

- **Humour – Limited and not in abundance**

5

Preparation

Preparation

- **Topic**
  - Extensive reading

- **Target Audience**
  - Context
    - *Conference / Classroom / Popular Talks*
  - Expectation
    - *Contents*
    - *Questions*
      - **Question Method**
      - **From Speaker as well as from Audience**

- **Duration of presentation**
  - Awareness of time constraint
    - *Number of slides / Quantum of content*

Contents

General Characteristics

- **Outline of Presentation**
  - Salient Contents
  - Logical sequence of thoughts
- **Introduction**
- **Separator Slides**
  - Sections and sub-sections
- **Summary/Conclusions**
- **References** (Not too many)
- **Acknowledgements** (if any)

Slides

- **Choose a template**
  - Slide Master
  - Font Size
  - Style
  - Numbering

Language and Vocabulary

- **Reports should be easily accessible and understandable**

  ❖ Be straightforward and concise

  ❖ Use simple terms, not jargon and non-technical terms

  ❖ Keep sentences short and simple (20 words max, 2.5 lines max)

    ▪ Avoid too long compound sentences

  ❖ Be specific and not general

    ▪ Use concrete numbers and metaphors or similes

- **Background**
  - Aesthetic appeal
    - *Comfort*

A prerequisite

- **Core competence**

- **Background**
  - Aesthetic appeal
    - *Comfort*
  - Lighting of room
    - *Less-lit room*
      - **Dark background**
      - **Light-coloured fonts**

- # **Background**
  - – Aesthetic appeal
    - *Comfort*
  - – Lighting of room
    - *Less-lit room*
      - – **Dark background**
      - – **Light-coloured fonts**

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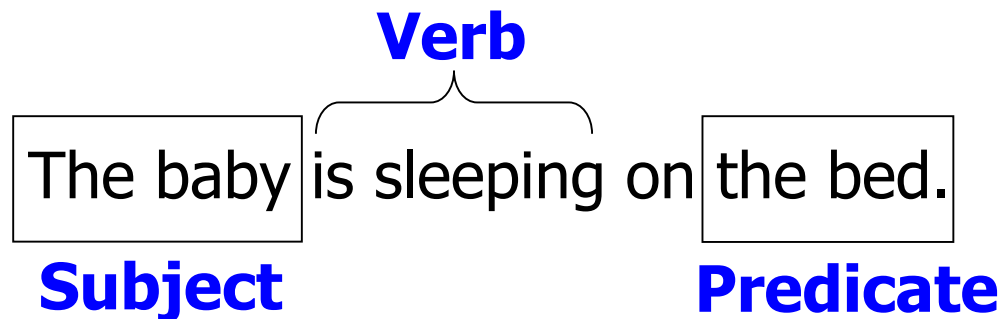
- **Background**
  - Lighting of room
    - *Well-lit room*
      - **Light background**
      - **Dark coloured letters**

- **Text**
  - Complementary to the delivered contents
    - *Minimum content*
  - No full sentences, use **keywords**
    - *Main Bullet :: Subject*
    - *Sub-Bullet :: Predicate*
    - ***No read-out of slide contents***

Verb

The baby is sleeping on the bed.

Subject   **Predicate**

Slides :: Font Size

- **Size of room**
  - A-priori knowledge

- **28 point**
  - 24 point
    - *22 point*
      - **20 point**

      (Minimum 18 point)

  | Normal Room

- **36 point** } Large Room

- **Size of screen also matters**
  - Font size enhances when exposed to a big screen

Slides :: Font Details

- **Style**
  - Not too many variations
- **Colours**
  - Background compatibility
    - *Light fonts and light background*
    - *Dark fonts over dark background*
  - Not too many variations
    - *Simple and Soothing*
  - Transitions and Animations
    - *Not too many*
  - Emphasis

A prerequisite

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- **Design Aspects**
  - Strut-and-tie method of design for D-regions
    - *Width of strut due to distributed shear force*
    - *Effect of reinforcement distribution*
    - *Capacity design of squat walls??*

- **Configuring (proportioning) the geometry**
  - Wall :: with and without boundary elements
  - Foundation :: foundation versus wall

- **Analysis Aspects**
  - Nonlinear inelastic finite element analysis of wall panel
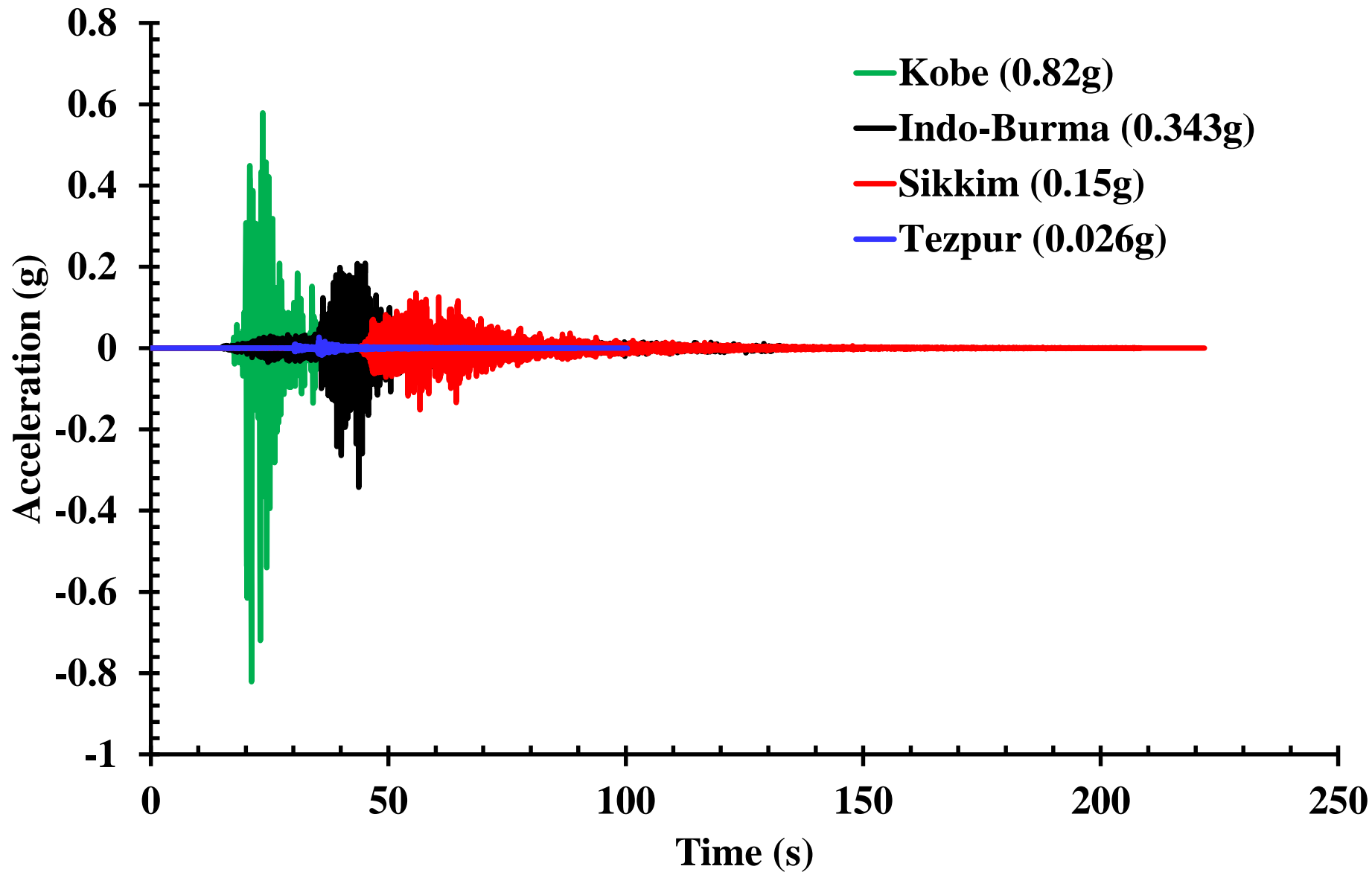
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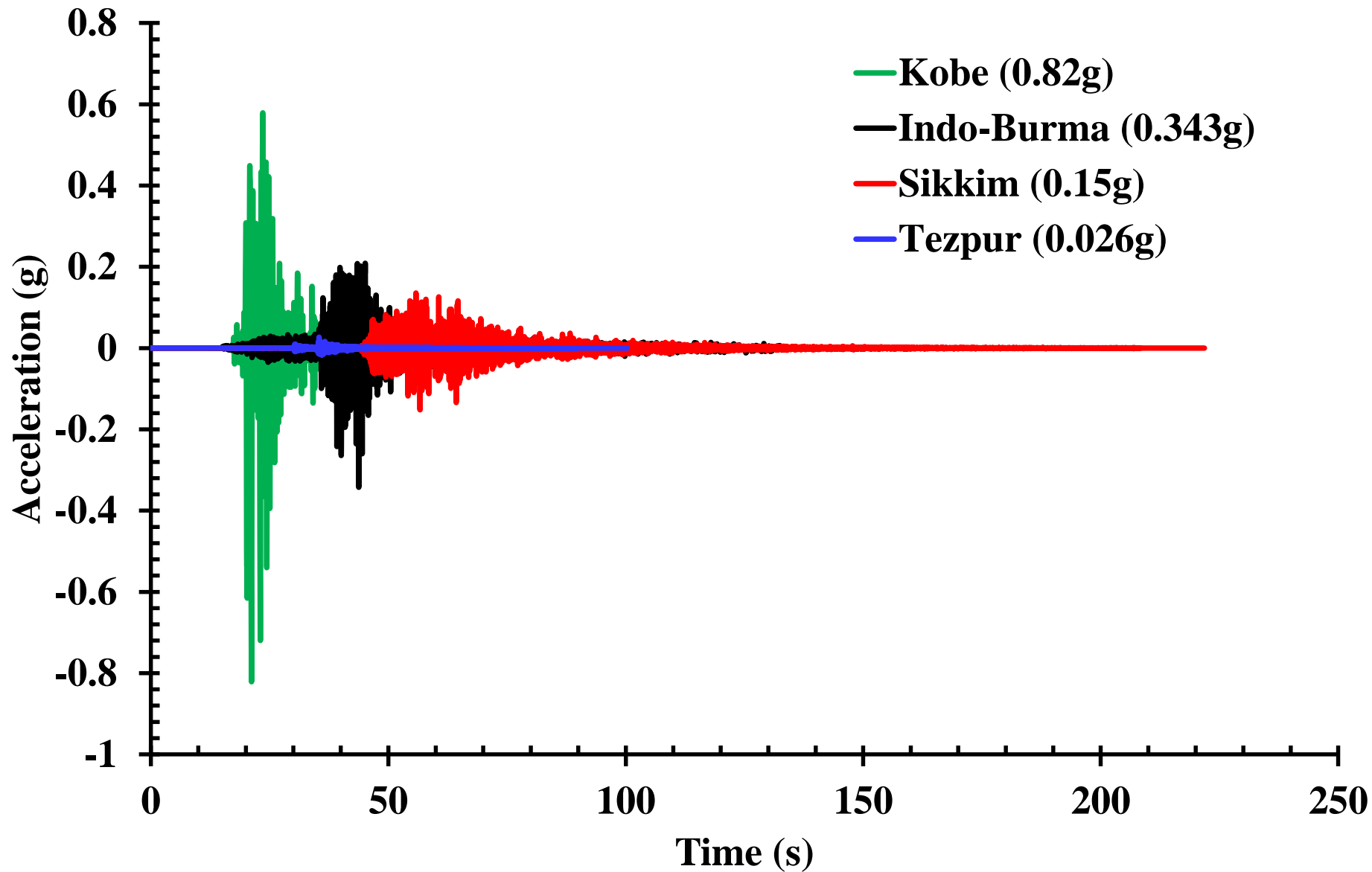   - *Capacity design of squat walls??*

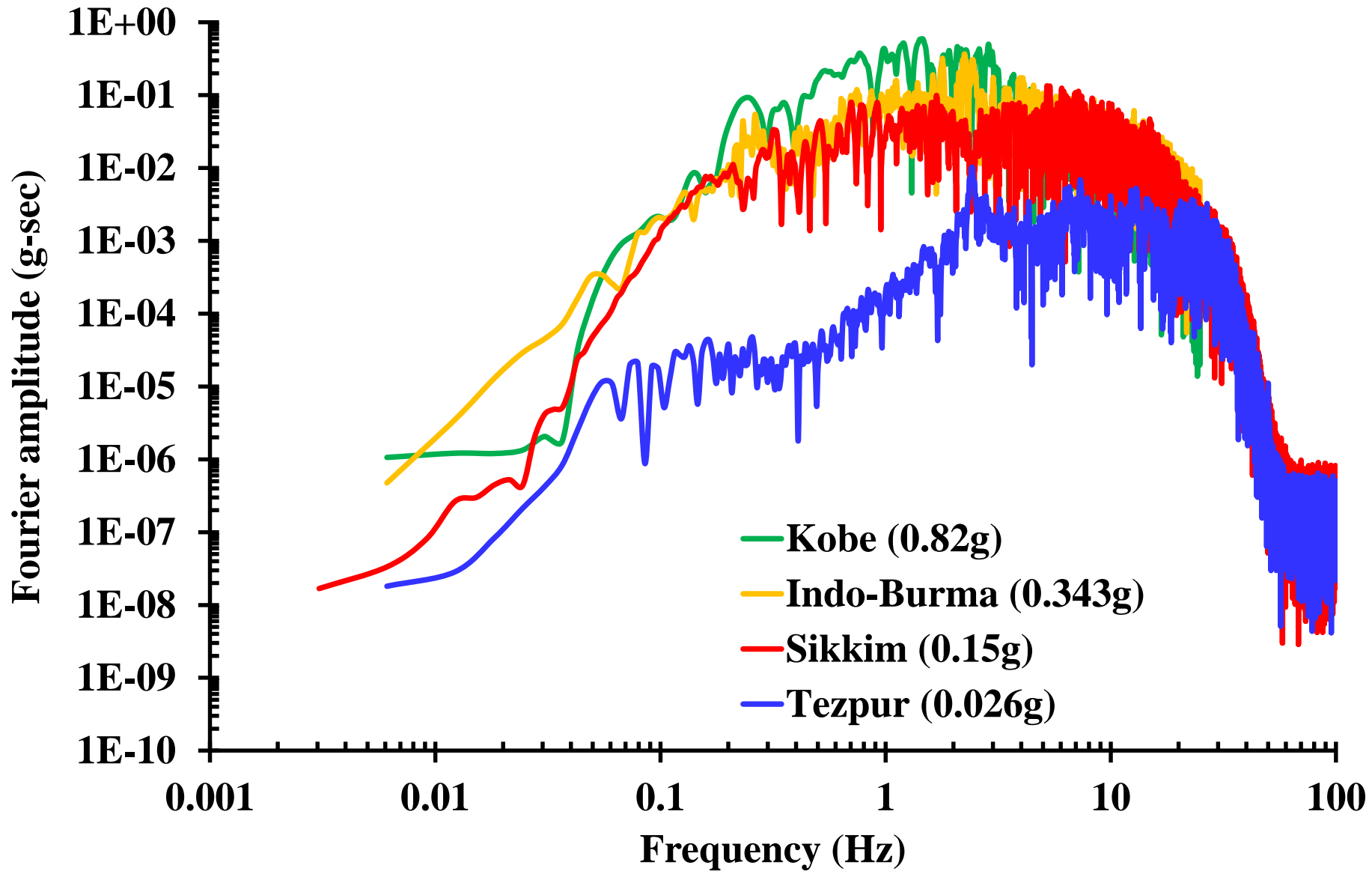- **Configuring (proportioning) the geometry**
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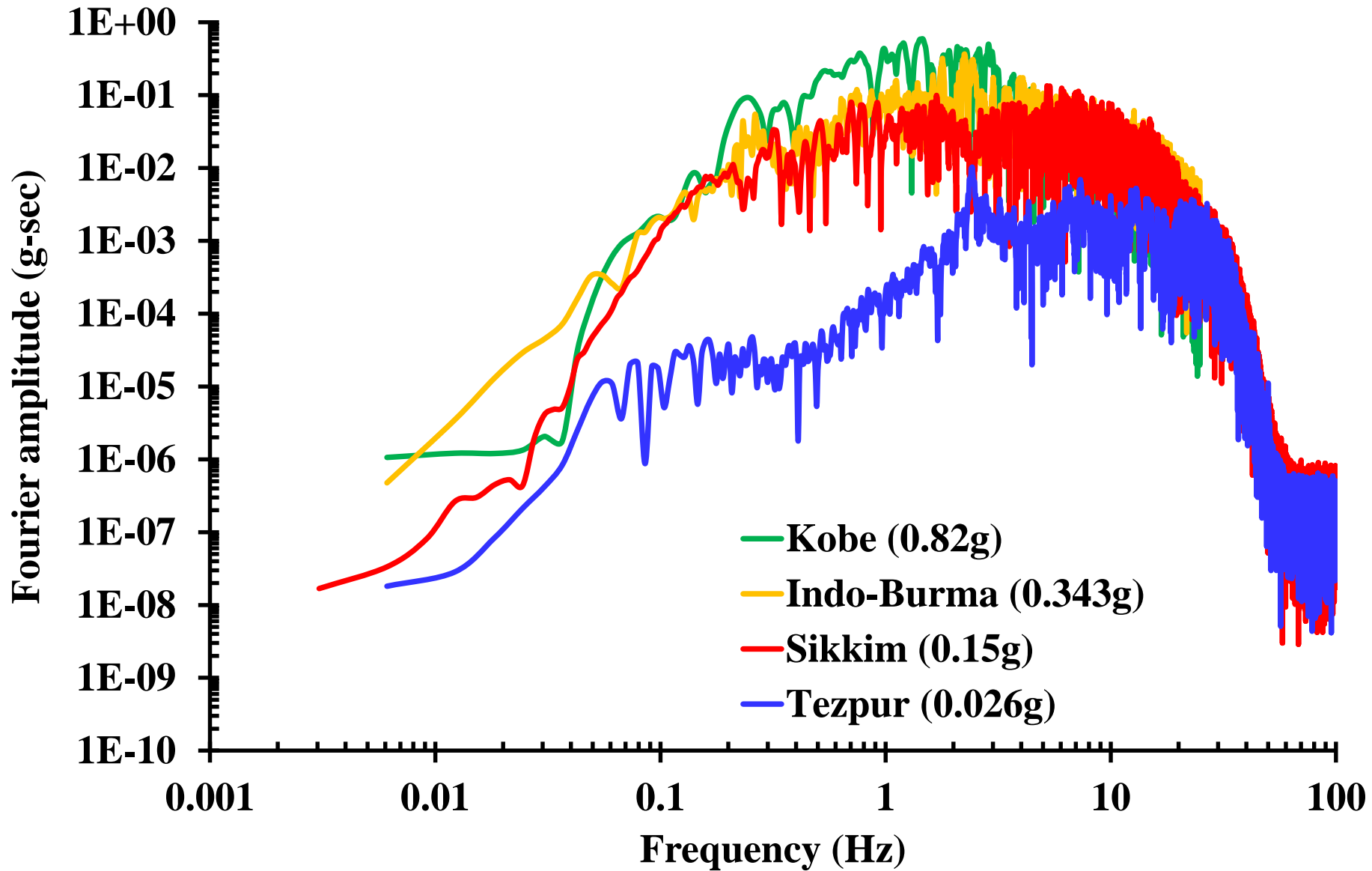 - Foundation :: foundation versus wall

- **Analysis Aspects**
  - Nonlinear inelastic finite element analysis of wall panel

Legend:
- ■ BSI
- CMH/MGP
- ▲ IGP
- + MOWB-II
- × WIH
- – NG
- + DPHI
- × IF
- – GHSS
- ■ GSIC
- ◆ AS
- ◆ RKMH
- × DIV4
- ✳ DNGC
- ✳ KV2
- – VIPH
- ■ SLSA
- ▲ SFRI
- CVS
- ● DBS
- - DPS
- ◆ JGG
- —— Northern Area
- —— North-Eastern Area
- —— Central Area
- —— South-Western Area
- —— South-Eastern Area

Tezpur PBA = 0.026g

Figure: Amplification Factor versus Depth (m). Legend entries: BSI, CMH/MGP, IGP, MOWB-II, WIH, NG, DPHI, IF, GHSS, GSIC, AS, RKMH, DIV4, DNGC, KV2, VIPH, SLSA, SFRI, CVS, DBS, DPS, JGG, Northern Area, North-Eastern Area, Central Area, South-Western Area, South-Eastern Area. Tezpur PBA = 0.026g
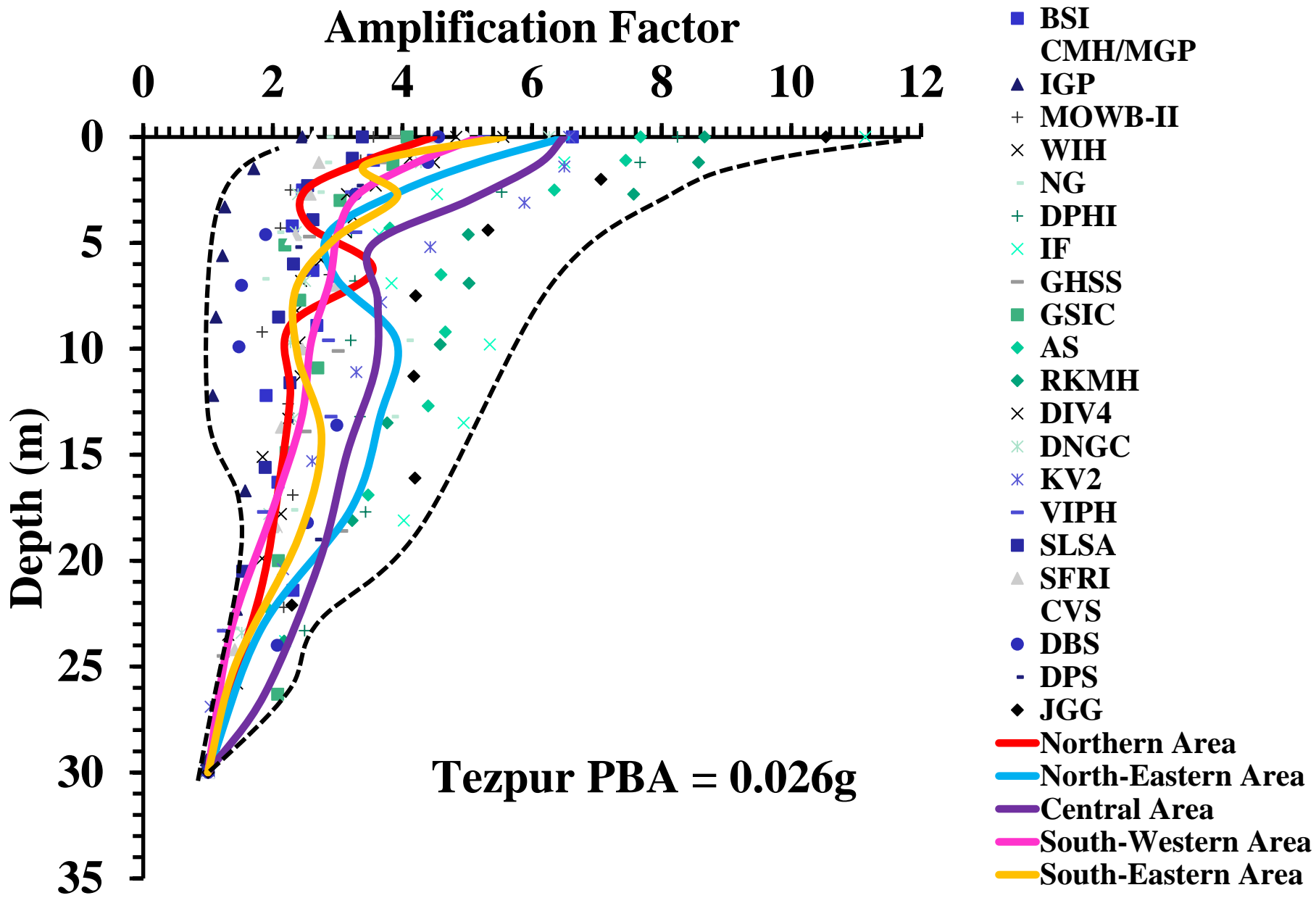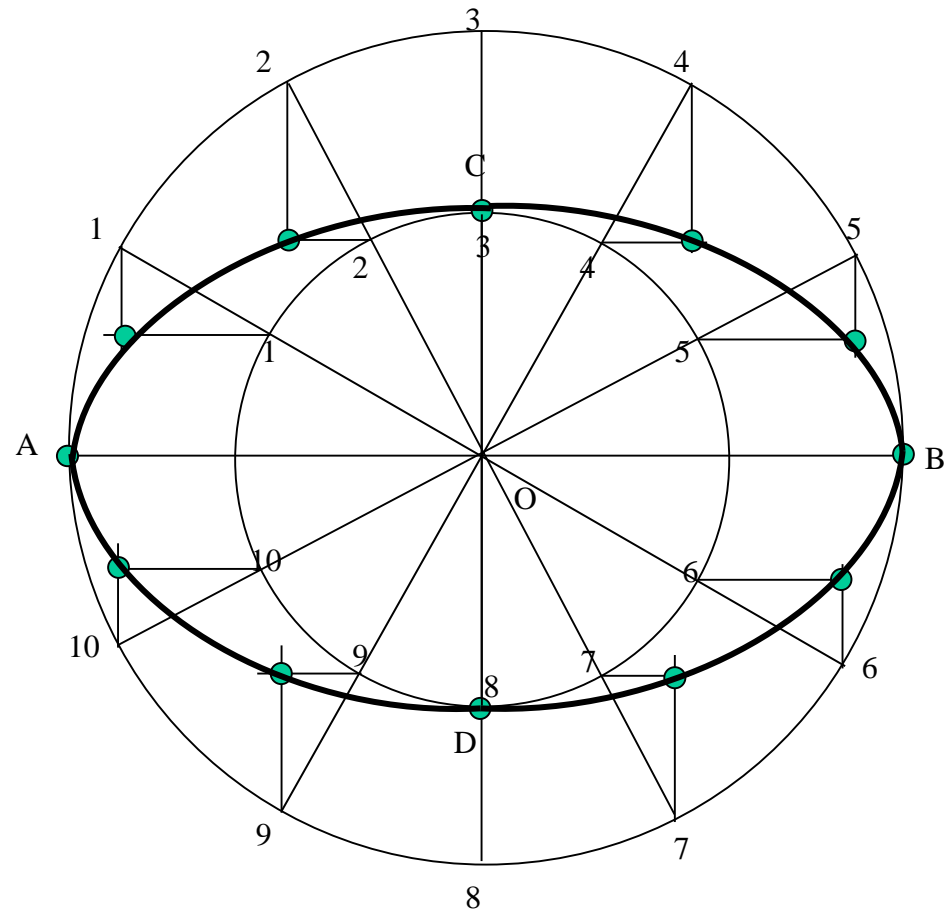
Concentric Circle Method

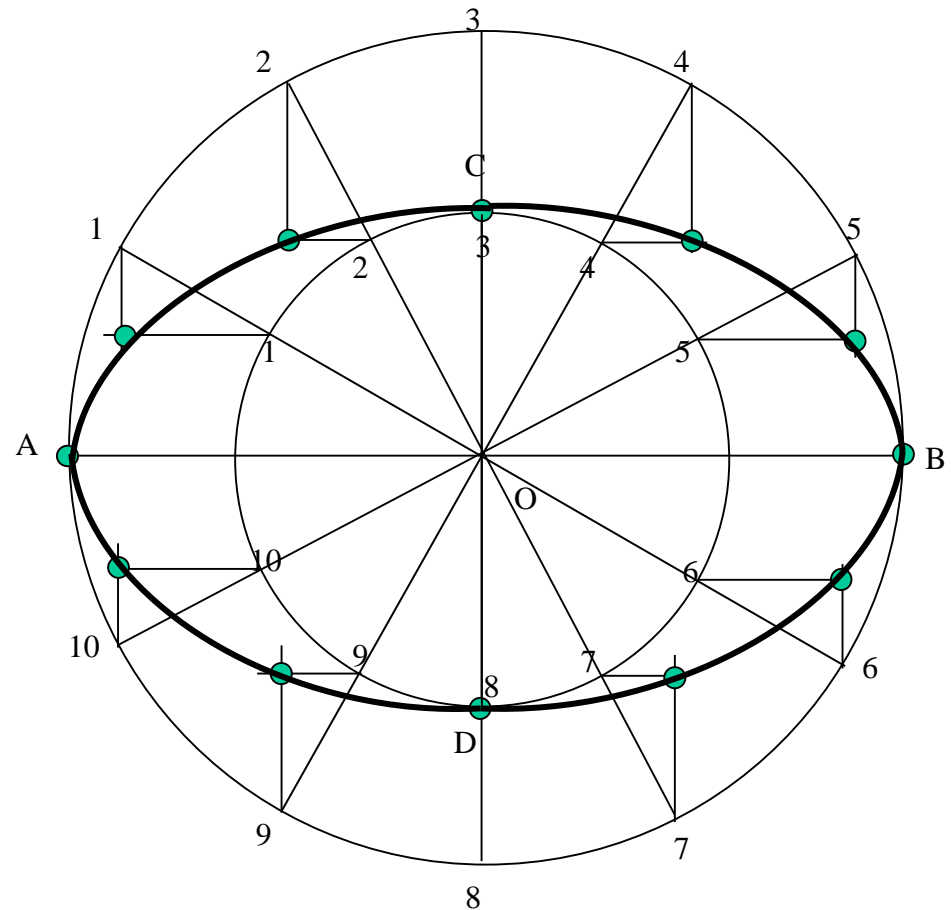- **Draw an ellipse having the major axis of 70 mm and the minor axis of 40 mm**

  – Draw both axes as perpendicular bisectors of each other & name their ends as shown.

  – Taking their intersecting point as a center, draw two concentric circles considering both as respective diameters.

  – Divide both circles in 12 equal parts & name as shown.

  – From all points of outer circle draw vertical lines downwards and upwards respectively.

  – From all points of inner circle draw horizontal lines to intersect those vertical lines.

  – Mark all intersecting points properly as those are the points on ellipse.

  – Join all these points along with the ends of both axes in smooth possible
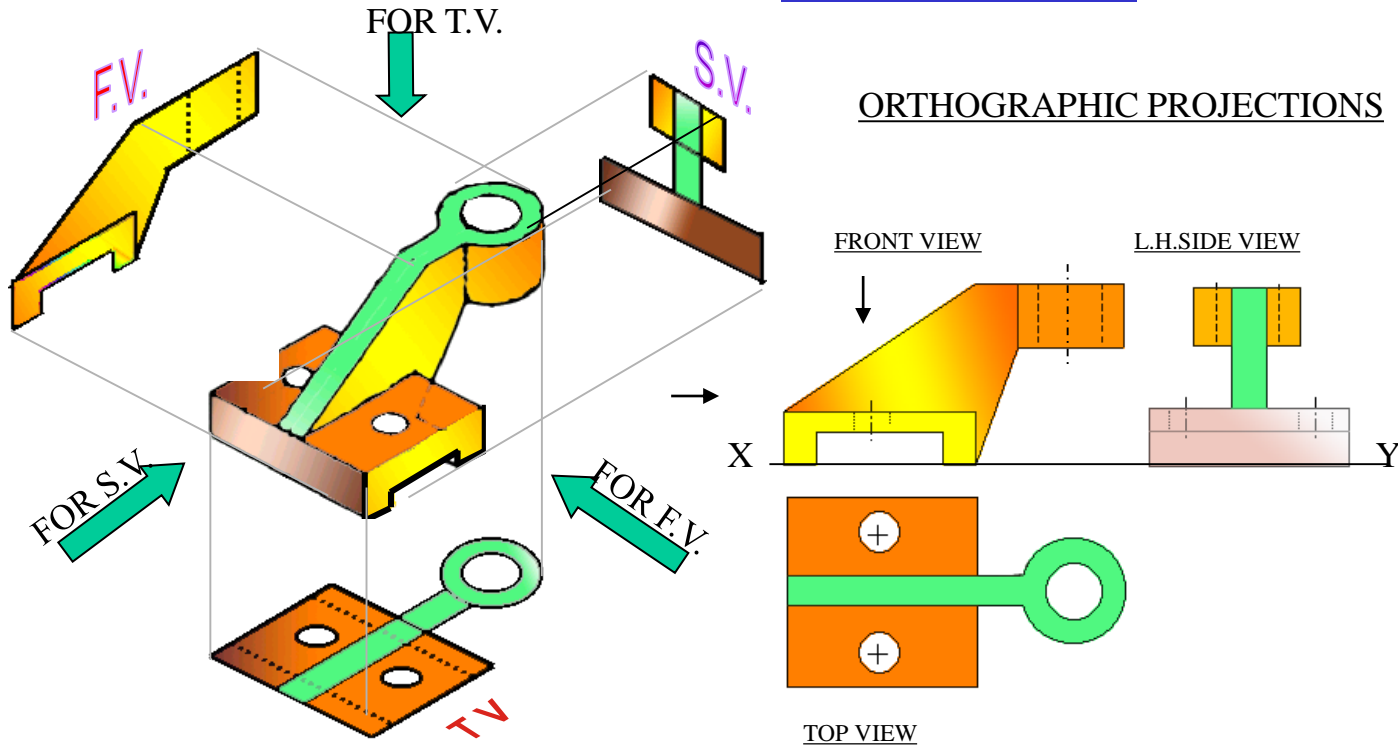
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Example-6

ORTHOGRAPHIC PROJECTIONS

FOR T.V.

F.V.

S.V.

FOR S.V

FOR F.V.

T.V.

FRONT VIEW

L.H.SIDE VIEW

X ——————— Y

TOP VIEW

PICTORIAL PRESENTATION IS GIVEN
DRAW THREE VIEWS OF THIS OBJECT
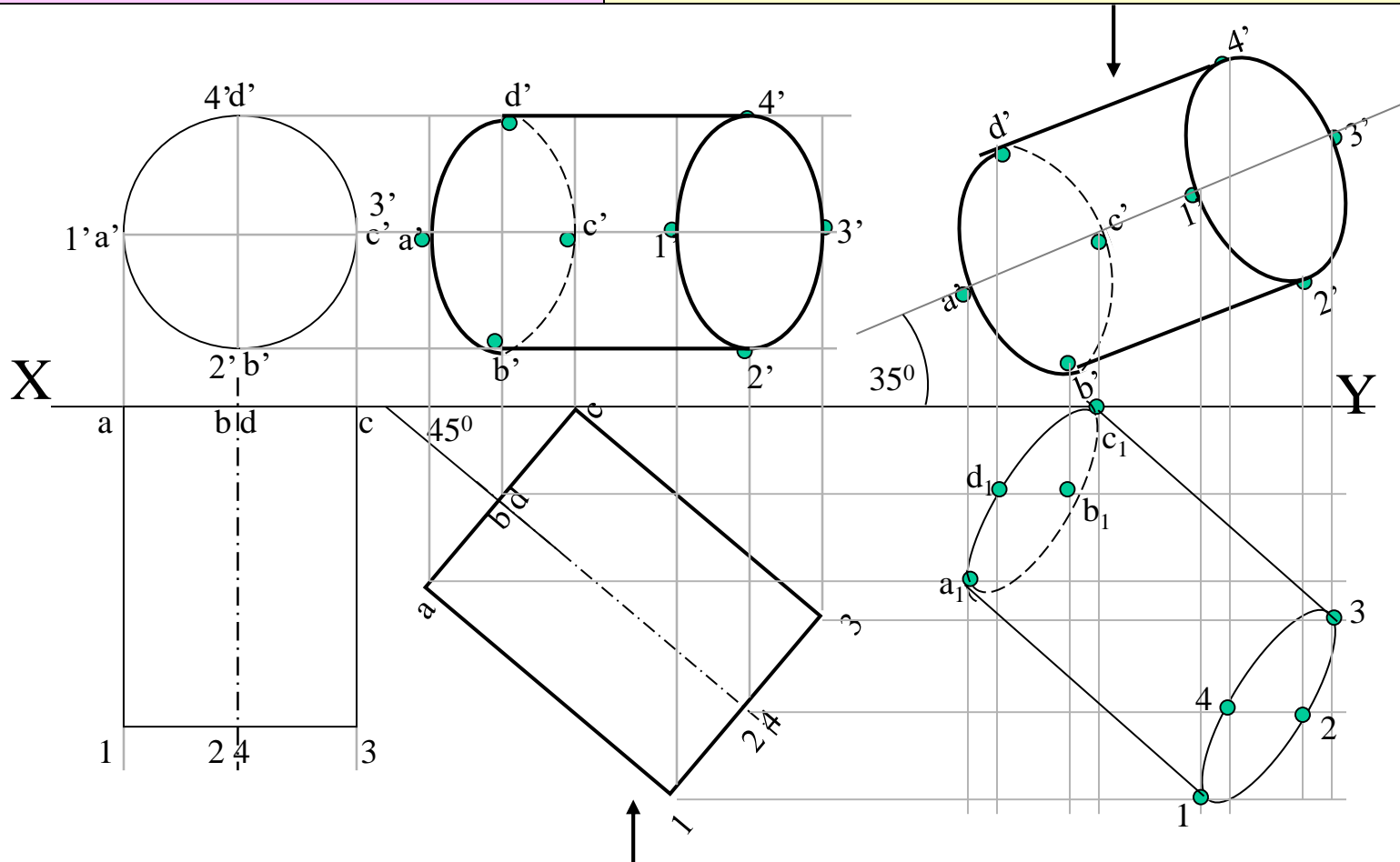BY FIRST ANGLE PROJECTION METHOD

Problem 6:

A cylinder 40 mm diameter and 50 mm axis is resting on one point of a base circle on Vp while it's axis makes 45^0 with Vp and Fv of the axis 35^0 with Hp. Draw projections..

Solution Steps:

Resting on Vp on one point of base, means inclined to Vp:
1. Assume it standing on Vp
2. It's Fv will show True Shape of base & top(circle)
3. Draw 40mm dia. Circle as Fv & taking 50 mm axis project Tv.
   (a Rectangle)
4. Name all points as shown in illustration.
5. Draw 2nd Tv making axis 45^0 to xy And project it's Fv above xy.
6. Make visible lines dark and hidden dotted, as per the procedure.
7. Then construct remaining inclination with Hp
   (Fv of axis I.e. center line of view to xy as shown) & project final Tv.

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Highlighting of some fabrication done in your experimental thesis
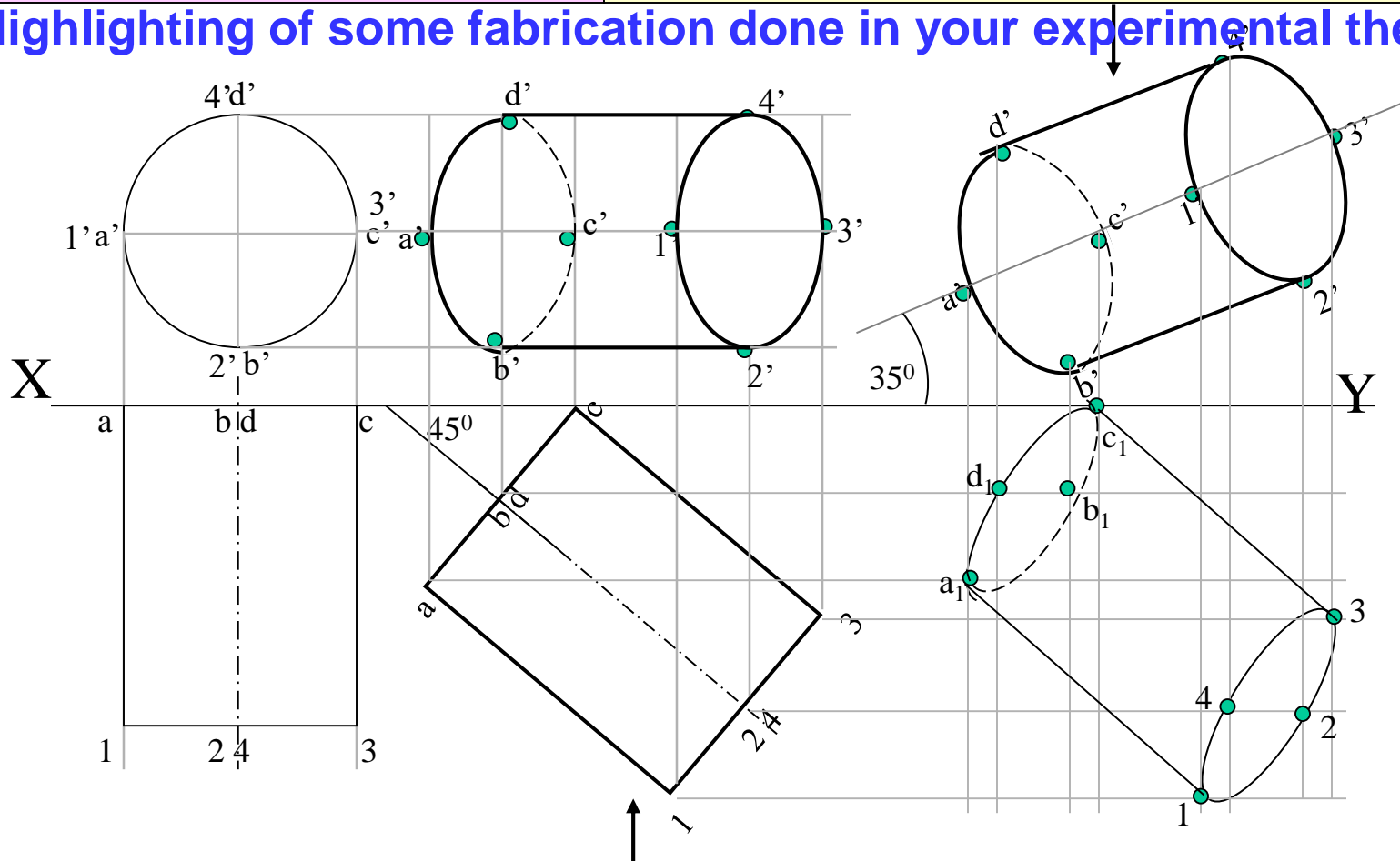
- **Pictures**
  - Efficiency of communication
    - *Text   1*
    - *Table 10*
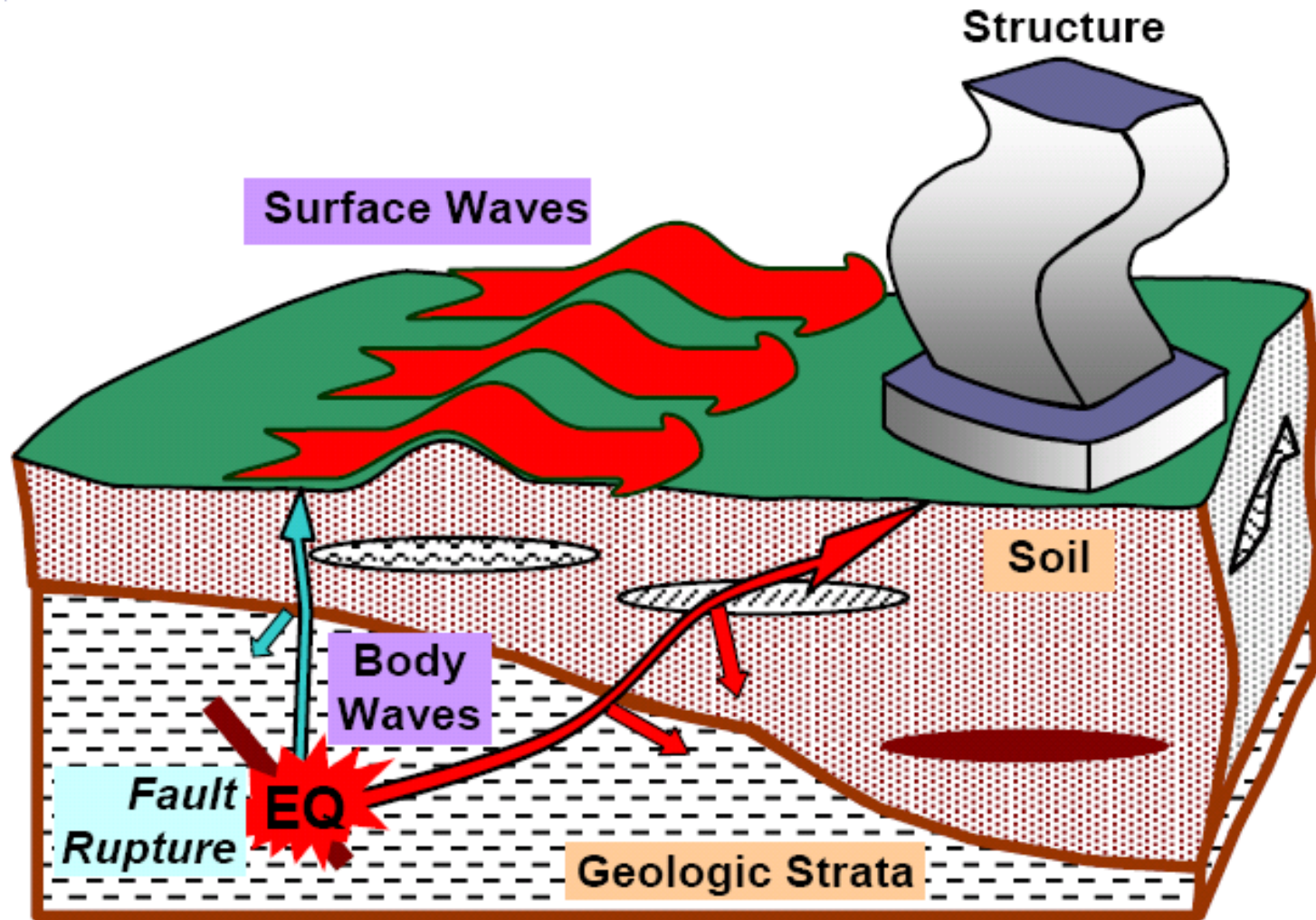   - *Graph   100*
    - *Picture   1000*

  - Representative colours
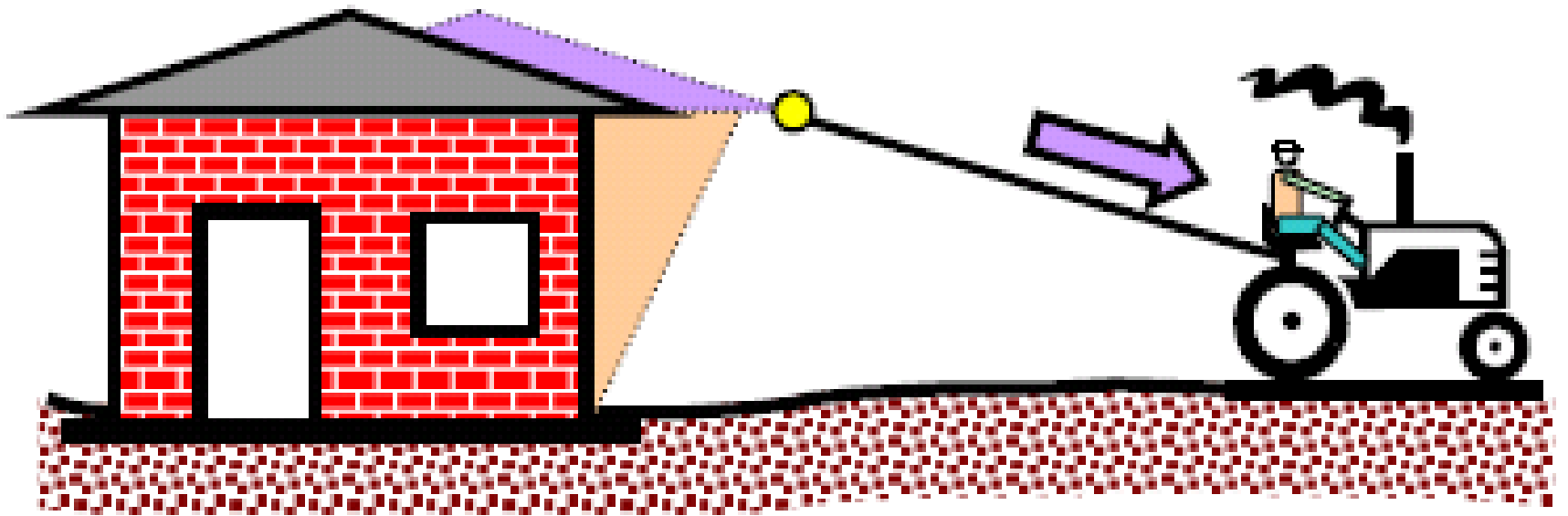   - *Not too many*

  - Cartoons, Clip-arts, Graphs

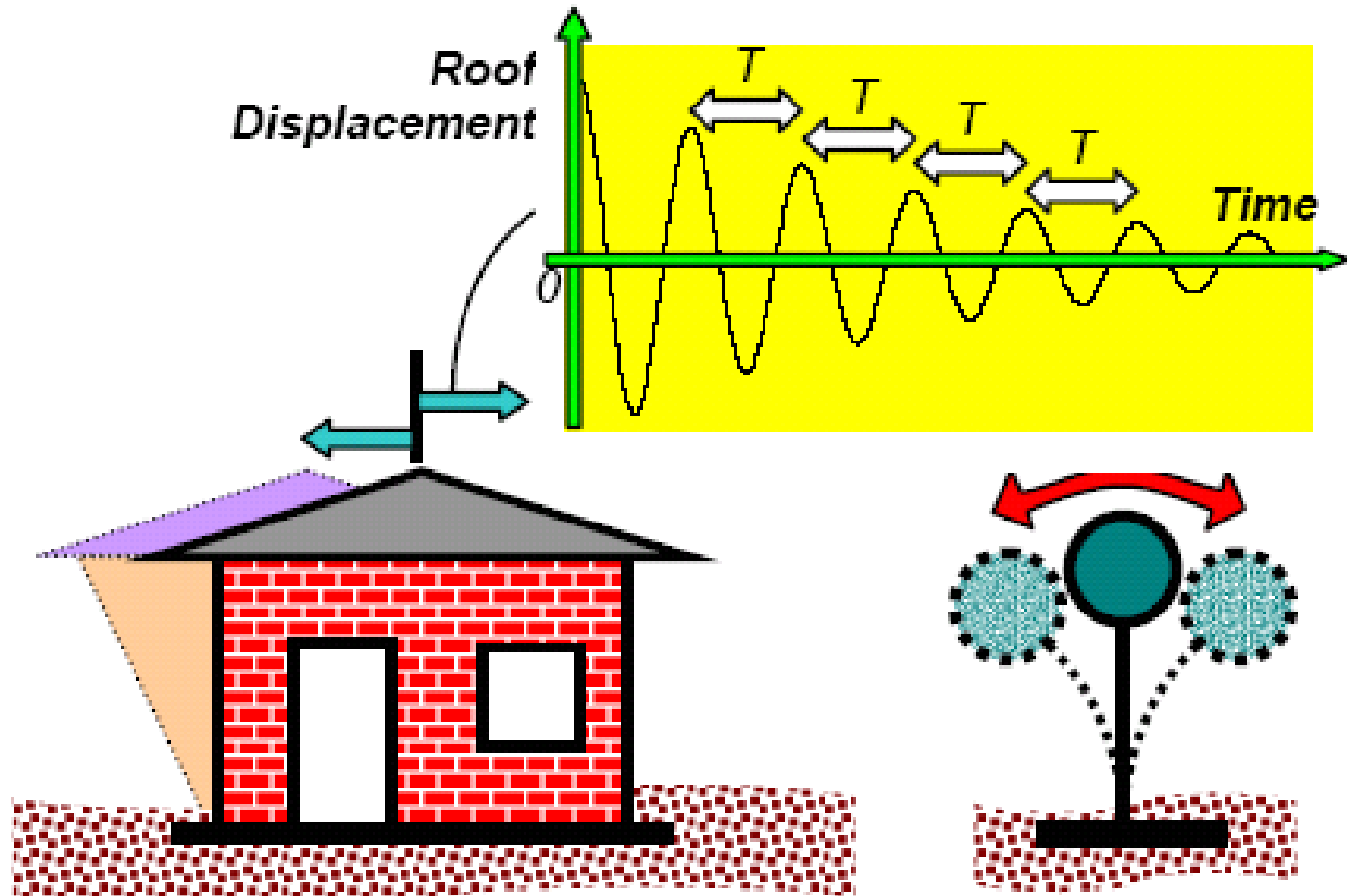 - VISIO/MS-WORD/SKETCH-UP/AutoCAD

[Murty, 2002]

[Murty, 2002]

Inverted Pendulum Model

[Murty, 2002]

Slides :: Oral Examination

- **General Outline**

- **Literature Review**
  - Collated salient work (Not all papers consulted)

- **Research**
  - New contribution
  - Salient results
  - Minimum equations
    - *DO NOT read out equations (give their salient meaning)*

$$\theta = \theta_r + \frac{\theta_s - \theta_r}{[1+|\alpha h|^n]^m}$$

$$[K(h)] = \frac{K_s\{1-(\alpha h)^{mn}[1+(\alpha h)^n]^{-m}\}^2}{[1+(\alpha h)^n]^{ml}}$$

- **References**
  - Salient ones

Delivery

Delivery

- **Posture**
  - Stand and deliver
  - Uniform focus on everybody
    - *80% of the time :: audience*
    - *20% of the time :: slides*

  - Comfortable
    - *No fiddling with pointer*
    - *Less physical movement*
    - *Patient and Positive*
      - **No drooping of shoulders or negative attitudes**
      - **No arrogance or overconfidence**
      - **Neither too flamboyant Nor flashy**
      - **Neither overtly nascent state Nor drowsiness**
    - *Do not hesitate to take sips of water if required*

- **Speech**
  - Pace
    - *Comfortable*
      - **Not too fast or too slow**
      - **Neither too swift Nor too monotonous**
    - *Awareness of time constraint*
      - **Respect to other fellow speakers**

  - Volume
    - *Audible from back row*
      - **Classroom**
    - *Check availability of sound system*

- **Speech**
  - Grammar
    - *Short sentences*
      - **Appropriate words**
      - **Neither too repetitive Nor too jargonistic**
    - *Natural flow*
    - *Humour*
      - **Relief**

  - **Brown Out**
    - *Look up the slides*
    - *No stammering or interruptions*
    - *Ideally, no stuttering*
    - *No mixing up of the vocabularies and languages*
      - **Can be evaded with rehearsals and practice**

- **Attitude**
  - Respect for audience

    - *Questions at the end*
      - **Uninterrupted flow**
      - **Be ready to pick up the thread when interrupted**

    - *Appreciate questions*
      - **No agitation**

    - *Electronic devices*
      - **Silent mode**

DO NOT GIVE A PRESENTATION IF YOU CAN NOT RESPECT YOUR AUDIENCE!

Closure

Preparation is the Key!

- **Rehearsal**
  - Browse through the slides
  - Mock presentation
    - *Not too many times*
  - Picturize the presentation
    - *Be ready for impromptu management*
    - *Power cut, Brown out etc.*
- **Decent State**
  - Physical state
    - *Good sleep*
    - *Adequate food*
      - **Avoid heavy meal and subsequent burping**
      - **Eat light to prevent your stomach growling**
  - Mental state
    - *Focus on the presentation*

Acknowledgements

- **Professor C.V.R. Murty**
- **Technical Presentation Notes, McMaster University, Canada**

Thank You for Patient Hearing