

#### **Advanced LaTeX with Overleaf**

Dr. Atul Kr. Ojha
Data Science Institute
University of Galway
atulkumar.ojha@universityofgalway.ie

University of Galway.ie

#### Outline

- Multiple chapters and TeXs
- To manage long table and figures
- Unicode, UTF-8 and multilingual work
- External resources
- Bibliography management



### Multiple chapters and TeXs



```
\section{Multiple chapters}
\label{multi-chapters}
\input{multi-chapters/intro.tex}
\section{Long Table}
\label{long_table}
\input{long_table/table}
\section{Multilingual Typesetting}
\label{multi_typesetting}
%\input{multilingual/multilingual.tex}
```



## To manage long table and figures





```
\begin{longtable}{||1||1|}
\caption{A sample long table.}
\label{tab:long} \\
....
\end{longtabel}
```

```
\usepackage{subcaption}
\begin{figure}[!ht]
\includegraphics[width=.24\textwidth]{long_table/img4
sl/thumb0001.png}\hfill
\includegraphics[width=.24\textwidth]{long_table/img4
sl/thumb0002.png}\hfill
  \caption{Sample of a sign language video in frames
(excerpted from C00207\_711.mp4 in the corpus;
Translations in Traditional Chinese}
  \label{fig:signlg}
\end{figure}
```



# Unicode, UTF-8 and multilingual work



#### PdfLaTeX vs. XeLaTeX vs. LuaLaTeX

- PdfLaTeX
  - o an extension of TeX which can produce PDF directly from TeX source
- XeLaTex
  - o reads (inputs) UTF-8 encoded Unicode text
- LuaLaTeX
  - o an extended version of pdfTeX using Lua as an embedded scripting language
  - o reads (inputs) UTF-8 encoded Unicode text.



```
\usepackage{fontspec}
\usepackage{polyglossia}
\usepackage{emoji}
%\setmainlanguages{english}
\setotherlanguages{hindi,bengali,punjabi,urdu,thai,hebrew}
\newfontfamily\devanagarifont[Script=Devanagari]{Lohit Devanagari}
\newfontfamily\bengalifont[Script=Bengali]{Lohit Bengali}
\newfontfamily\malayalamfont[Script=Malayalam]{Noto Serif Malayalam}
\newfontfamily\punjabifont[Script=Gurmukhi]{Saab.otf}
\newfontfamily\urdufont[Script=Arabic]{JameelNooriNastaleeq.ttf}
\newfontfamily\odiafont[Script=Oriya]{NotoSerifOriya-VariableFont_wght.ttf}
\newfontfamily\thaifont[Script=Thai]{Noto Serif Thai}
\newfontfamily\hebrewfont[Script=Hebrew]{Noto Serif Hebrew}
%\setmainfont{TeX Gyre Termes}
```



# Bibliography management



# External resources and Debugging Compilation errors



#### Thank you!!

