

Summary Report of Add on Course on Introduction of LaTeX for Scientific Writing

Course Title: **Introduction of LaTeX for Scientific Writing**

Coordinator: Dr. Manas Kumar Roy

Resource Persons: Dr. Manas Kumar Roy (MKR), Dr. Kamakshyaprasad Modak (KPM), Dr. Avinanda Chaudhury (AC)

Duration : 30 Hours(Theory :15,Practical :15 hrs)

Brahmananda Keshab Chandra College, Dept. of Physics conducted a 30 hours Add-on Course on "Introduction of LaTeX for Scientific Writing" to empower the students with the knowledge of "Basics of LaTeX" a document preparation system which is highly recommended for reports, PhD thesis, publications, papers and books in many fields, including Physics, Mathematics, Computer Science, Statistics, Biological Sciences, Economics. The course was conducted from 20-03-2023 to 30-06-2023. The main motive is to impart the knowledge and understanding about LaTeX template and documentation system, explain the methodology of LaTeX typesetting and familiarize the participants with various document formats of LaTeX and implement them to prepare research articles, thesis, books, and presentations confidently.

The broad objectives of the course were:

1. Successfully install LaTeX and its related components on a home/ Personal computer
2. To understand LaTeX, a document preparation system for high - quality typesetting.
3. To understand the features of LaTeX to have hands on experience to become a user of LaTeX.
4. To explore different class and system files for different publishing houses and thus exposed to research methodology of creative scientific writing.

Course Content:

- I. The Basics [2Hr] 20/03/2023 MKR
- II. The Document [2Hr] 23/03/2023 AC
- III. Bibliography [2Hr] 29/03/2023 KPM
- IV. Bibliographic Databases [2Hr] 07/04/2023 KPM

V. Table of contents, Index and Glossary	[2Hr]	15/04/2023	KPM
VI. Displayed Text	[2Hr]	22/4/2023	AC
VII. Rows and Columns	[2Hr]	30/4/2023	KPM
VIII. Typesetting Mathematics	[4Hr]	02/05/2023 & 07/05/2023	MKR/KPM
IX. Typesetting Theorems	[4Hr]	08/05/2023 & 17/05/2023	AC/KPM
X. Floats	[2Hr]	28/05/2023	KPM
XI. Cross References in LATEX	[2Hr]	05/06/2023	KPM
XII. Footnotes, Marginpars, and Endnotes	[2Hr]	17/06/2023	KPM
XIII. Table and Figure setting.	[2Hr]	28/06/2023	KPM
RECAPITULATIONS		30/06/2023	MKR
EXAMINATION		07/07/2023	KPM/MKR/AC

Total – 30 Hours

Students Outcomes :

Total 10 Students enrolled for this course and 7 out of them attended and completed the course successfully. Learning Outcomes Students are now has expertise in:

- Typesetting of complex mathematical formulae using LaTeX.
- Use of tabular and array environments within LaTeX.
- Use of various methods to either create or import graphics into a LaTeX document.
- Typesetting of journal articles, technical reports, thesis, books, and slide presentations.
- Automatic generation of table of contents, bibliographies and indexes.
- Page setting, creating different document environment best fit to the requirements.

References

- Flynn, Peter (2017) [2002]. *Formatting Information: A Beginner's Guide to LaTeX (7th online ed.)*. Cork: Silmaril. p. 193.
- Griffiths, David F.; Highman, David S. (1997). *Learning LaTeX*. Philadelphia: Society for Industrial and Applied Mathematics. ISBN 0-89871-383-8.
- Kopka, Helmut; Daly, Patrick W. (2003). *Guide to LaTeX (4th ed.)*. Addison-Wesley Professional. ISBN 0-321-17385-6.
- Lamport, Leslie (1994). *LaTeX: A document preparation system: User's guide and reference. illustrations by Duane Bibby (2nd ed.)*. Reading, Mass: Addison-Wesley Professional. ISBN 0-201-52983-1.
- Mittelbach, Frank; Goossens, Michel (2004). *The LaTeX Companion (2nd ed.)*. Addison-Wesley. ISBN 0-201-36299-6.

Students enrolled and attended the course

- 1. ARPAN HAZRA**
- 2. ANKIT KARMAKAR**
- 3. KAUSTAV GUPTA**
- 4. GOUTAM CHAKRABORTY**
- 5. KALAAP SADHU**
- 6. KOUSHIK BERA**
- 7. ANINDYAMOY MAITY**
- 8. PRIYANGSHU DAS**
- 9. TIRTHA KUMAR PAL**
- 10. SANDIP GHOSH**

Students enrolled, attended and completed the course successfully

- 1. ARPAN HAZRA**
- 2. ANKIT KARMAKAR**
- 3. KAUSTAV GUPTA**
- 4. GOUTAM CHAKRABORTY**
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