Lecture Recordings

Shared folder: <https://iitk-my.sharepoint.com/:f:/g/personal/vipular_iitk_ac_in/EtroSiFVsSVDr-fKZw4bqIkBYCZUb0euLQe9zZaSjn3Mgg> (has pdfs and assignments, codes, and project details)

Github link for Assignments (Practice and Share): <https://github.com/ee698r/assignments>

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| S.no. | Week | Date | Topic | Video Recording | Resources |
| 1 | 2 | 5 Jan | Introduction to Generative Models | * <https://iitk-ac-in.zoom.us/rec/share/Dgb7jYKY6JracvdeXq-9MAm_pDKuqGqeVecCDHFVCpvH5xIvX-HQ0FaP9TCmykZj.zhKwjbGDRDLqkDL_> |  |
| 2 | 3 | 10 Jan | Sampling and Graphical Models | * [Introduction to Probabilistic Models](https://youtu.be/AvBurMGN4Q4) * [Introduction to Generative Models: Sampling and Graphical Models](https://youtu.be/kBfj6g4pAGA) |  |
| 3 | 3 | 12 Jan | Sampling and Graphical Models 2 | * [Generative Models: Sampling and Graphical Models - 210331](https://youtu.be/vsy9uYrSUDg) * <https://iitk-ac-in.zoom.us/rec/share/kBHD3HENwcRgPafjIBOQLG2QxDqozrpIVyyUPlLTGn4mOqZfwJldaNZfahxTRBU7.QocC0pCgtcYNlUzE> |  |
| 4 | 4 | 17 Jan | Normalizing Flows | * <https://iitk-ac-in.zoom.us/rec/share/z7iKcGW7pq8sGxN9u2vk7QAOjjlnf20Z7UIK0l5_J8_-7ixPH8GvoXX-rP4lFU5g.GYK_vVtUTmgcRAcz> |  |
| 5 | 4 | 19 Jan | Normalizing Flows: planar and radial flows | * <https://iitk-ac-in.zoom.us/rec/share/4Y9L0w9YUcroyRG_vBotFkYMmhryj435FgeHb_3qVmi1CmHBto5-yZCB0fdAlNyP.WPFODZbbkFgfW4bF> |  |
| 6 | 5 | 24 Jan | Tensorflow GradientTape | * [EE698R class: 20220124 TensorFlow Gradient Tape](https://youtu.be/-yY-BzFLlKo) | <https://colab.research.google.com/drive/1IraahGALgiAGnNHxS7SQZyir9r9cAbrt?usp=sharing> |
| 7 | 6 | 31 Jan | Lattice models | * [EE698R class 07 Lattice Models](https://youtu.be/JntiIQ4QK9Y) |  |
| 8 | 6 | 2 Feb | Variational Inference | * [Approximate Inference - 210331](https://youtu.be/6CIdmkTz1u4) * [Approximate Inference: 2/2 - 210405](https://youtu.be/kzbdV3q0Qt4) |  |
| 9 | 7 | 7 Feb | Rejection and Importance Sampling | * [EE698R class 09 rejection and imp sampling](https://youtu.be/pAjRKolPan0) |  |
| 10 | 7 | 9 Feb | GANs | * [EE698R class 10 GAN](https://youtu.be/qSbJvQix1uc) |  |
| 11 | 8 | 14 Feb | GMM | * [Lecture\_20 GMM](https://youtu.be/mBDDfioO2C0) |  |
|  | 8 | 16 Feb | Quiz |  |  |
|  | 9 |  | Mid Sem Exams |  |  |
| 12 | 10 | 28 Feb | Monte Carlo Sampling | * [Monte Carlo Sampling: 1/2 - 210405](https://youtu.be/fVlXP4dFRvE) * [Monte Carlo Sampling: 2/2 - 210407](https://youtu.be/kWhd8ie3ybg) |  |
| 13 | 10 | 2 Mar | MCMC Sampling methods | * [Sampling Theory: Gibbs sampling and Metropolis Hastings Algorithm: 210426](https://youtu.be/MAl5-V-fmKs) |  |
| 14 | 11 | 7 Mar | Sequential models: RNN | * [Lecture 28: Recurrent Neural Networks](https://youtu.be/wSojHE5XBmY) * [Lecture 29: Recurrent Neural Networks 2](https://youtu.be/HuMp3P3uVmo) |  |
| 15 | 11 | 9 Mar | Meta Transfer Learning | * [Meta transfer learning: part 1/2](https://youtu.be/H1LBOEDdcxU) * [Meta transfer learning: part 2/2](https://youtu.be/8YKyZRvXl1o) |  |
| 16 | 13 | 21 Mar | Autoencoders | * [EE698R class 21 Mar AE](https://youtu.be/XoodP4P9kX0) |  |
| 17 | 13 | 23 Mar | VAE 1 | * [EE698R class VAEs](https://youtu.be/CI2Lfmbu6L8) |  |
| 18 | 14 | 28 Mar | VAE 2 | * [EE698R class VAEs 2](https://youtu.be/MLBI1Lt2bus) |  |
| 19 | 14 | 30 Mar | AED basics | * [EE698R class AED](https://youtu.be/Z9MolhCi8XE) * [Lecture 30: Acoustic Event Detection 1](https://youtu.be/GDWmcFL8Wng) * [Lecture 31: Acoustic Event Detection (2)](https://youtu.be/1oHulrqpOkY) |  |
| 20 | 15 | 4 Apr | LSTM, GRU | * [EE698R class LSTM GRU](https://youtu.be/-UEmktdtMcI) |  |
| 21 | 16 | 11 Apr | Mind and machines - 1 | * [EE698R class mind machine](https://youtu.be/ESlr3XNSLoU) * Slides:<https://iitk-my.sharepoint.com/:b:/g/personal/vipular_iitk_ac_in/EZzN7MhHdfdGgYdjy4-9oa0ByTE9WCCoCHyxc9L84m4EPw?e=o0vWfP> |  |
| 22 | 16 | 13 Apr | Mind and machines - 2 | * [EE698R class mind and machines 2](https://youtu.be/US2p8PgtGqg) |  |