

Peer-Peer Mentoring Program

Student Learning Center, Hansraj College

Month and Year: January, 2022

Department: Physics and Electronics

Name of the Departmental Program Coordinator: Dr. Ravikant Prasad

S. No	Name of the Mentor	Sem	Number of sessions Mentored	Date and Time (of each session)	Topics covered (in each session)	No. of Mentees attended (per each session)
1	Mr. Jishant Talwar	V	1 Session (2 hours)	9-01-2022; 11:00 pm - 1:00 pm	Machine Learning useful packages – Part 1	5
2	Ms. Ridhika Chhabra	V	2 Session (2 hours each)	23-01-2022; 11:30 am – 1:30 pm	Basics of C++	21
				30-01-2022 11:30 am – 1:30 pm	Basics of C++ continued	31

Mentor 1: Mr. Jishant Talwar

Course: B.Sc (H) Physics

Current Sem: V

Email id: jishant.talwarjt@gmail.com



January 9, 2022: Machine Learning useful packages – Part 1

Topics discussed

- 1) NumPy
 - a. NumPy Arrays
 - b. NumPy Indexing and Selection
 - c. NumPy Operators
- 2) Pandas

1	Meeting Summary						
2	Total Number of Participants	6					
3	Meeting Title	General					
4	Meeting Start Time	1/9/2022, 12:51:29 PM					
5	Meeting End Time	1/9/2022, 3:11:45 PM					
6	Meeting Id	164391d7-655b-488e-9de5-b438ef7ae8a4					
7							
8	Full Name	Join Time	Leave Time	Duration	Email	Role	Participant ID (UPN)
9	jishant	1/9/2022, 12:51:29 PM	1/9/2022, 3:11:43 PM	2h 20m	jishant7663@hrc.edu.du.ac.in	Presenter	jishant7663@hrc.edu.du.ac.in
10	ajay14177	1/9/2022, 1:00:17 PM	1/9/2022, 2:51:42 PM	1h 51m	ajay14177@hrc.edu.du.ac.in	Attendee	ajay14177@hrc.edu.du.ac.in
11	keshav14221	1/9/2022, 1:08:40 PM	1/9/2022, 3:11:45 PM	2h 3m	keshav14221@hrc.edu.du.ac.in	Attendee	keshav14221@hrc.edu.du.ac.in
12	sachin14248	1/9/2022, 1:37:35 PM	1/9/2022, 2:44:51 PM	1h 7m	sachin14248@hrc.edu.du.ac.in	Attendee	sachin14248@hrc.edu.du.ac.in
13	sachin14248	1/9/2022, 2:54:35 PM	1/9/2022, 3:11:43 PM	17m 8s	sachin14248@hrc.edu.du.ac.in	Attendee	sachin14248@hrc.edu.du.ac.in
14	aadarsh7605	1/9/2022, 1:37:44 PM	1/9/2022, 1:38:50 PM	1m 6s	aadarsh7605@hrc.edu.du.ac.in	Attendee	aadarsh7605@hrc.edu.du.ac.in
15	amaragani4361	1/9/2022, 2:07:12 PM	1/9/2022, 2:07:58 PM	45s	amaragani4361@hrc.edu.du.ac.in	Attendee	amaragani4361@hrc.edu.du.ac.in
16	amaragani4361	1/9/2022, 2:19:55 PM	1/9/2022, 2:19:59 PM	3s	amaragani4361@hrc.edu.du.ac.in	Attendee	amaragani4361@hrc.edu.du.ac.in
17	amaragani4361	1/9/2022, 2:22:11 PM	1/9/2022, 2:22:39 PM	28s	amaragani4361@hrc.edu.du.ac.in	Attendee	amaragani4361@hrc.edu.du.ac.in
18	amaragani4361	1/9/2022, 2:25:36 PM	1/9/2022, 2:26:49 PM	1m 13s	amaragani4361@hrc.edu.du.ac.in	Attendee	amaragani4361@hrc.edu.du.ac.in
19	amaragani4361	1/9/2022, 3:04:59 PM	1/9/2022, 3:05:10 PM	10s	amaragani4361@hrc.edu.du.ac.in	Attendee	amaragani4361@hrc.edu.du.ac.in

Study Material Provided:

<https://colab.research.google.com/drive/1axnphGcUbW96CjaNQC3UKFr29ve70am>

https://colab.research.google.com/drive/1_hhBYmnQjFsrCCsXnK091V_8oArVDG8Q

<https://colab.research.google.com/drive/15nL43z1nKFsUOTYzb9ZvFyQKRf3ah4tf>

https://colab.research.google.com/drive/1IkU3HELXYIToWnvM-hz-UdG7JaRd_u_a

sPhotograph:

The screenshot shows a Zoom meeting window titled "Meeting in_General_-20220109_131050-Meeting Recording.mp4". The main content is a Jupyter Notebook titled "NumPy Arrays Last Checkpoint: 11/10/2021 (unsaved changes)". The notebook displays the following code and output:

```
In [20]: np.eye(5)
Out[20]: array([[1., 0., 0., 0., 0.],
               [0., 1., 0., 0., 0.],
               [0., 0., 1., 0., 0.],
               [0., 0., 0., 1., 0.],
               [0., 0., 0., 0., 1.]])
```

Random
Numpy also has lots of ways to create random number arrays:

rand
Create an array of the given shape and populate it with random samples from a uniform distribution over $[0, 1)$.

```
In [21]: np.random.rand(2)
Out[21]: array([0.52892852, 0.59283352])
```

```
In [24]: np.random.rand(5,5)
Out[24]: array([[0.5191756 , 0.91803902, 0.51188778, 0.57111776, 0.44311963],
               [0.15278612, 0.72077845, 0.5400849 , 0.52687662, 0.56476699],
               [0.08628 , 0.31341909, 0.45027402, 0.27833728, 0.2944302 ],
               [0.43489997, 0.20021588, 0.12757581, 0.51643181, 0.10099122],
               [0.24221946, 0.9770631 , 0.14936527, 0.80560815, 0.28320542]])
```

randn
Return a sample (or samples) from the "standard normal" distribution. Unlike rand which is uniform:

The Zoom interface includes a sidebar on the left with icons for Activity, Chat, Teams, Assignments, Calendar, Calls, Files, Apps, and Help. On the right, there is a vertical list of participant avatars, including one labeled 'A' and others with names like 'ayy467', 'santosh213', 'unim0348', and 'unim0348'. The bottom of the window shows the Windows taskbar with the search bar, taskbar icons, and system tray showing the time as 3:11 PM on 7/19/2022.

Mentor 2: Ms. Ridhika Chhabra

Course: B.Sc (H) Physics

Current Sem: V

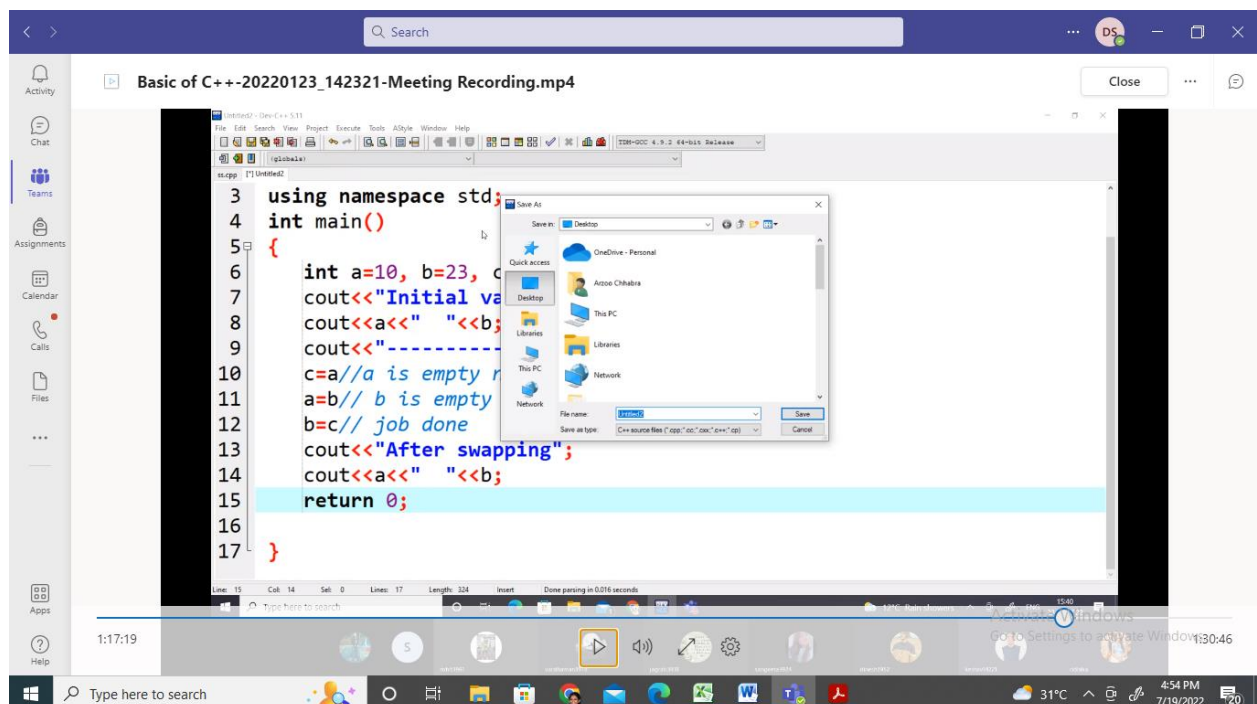
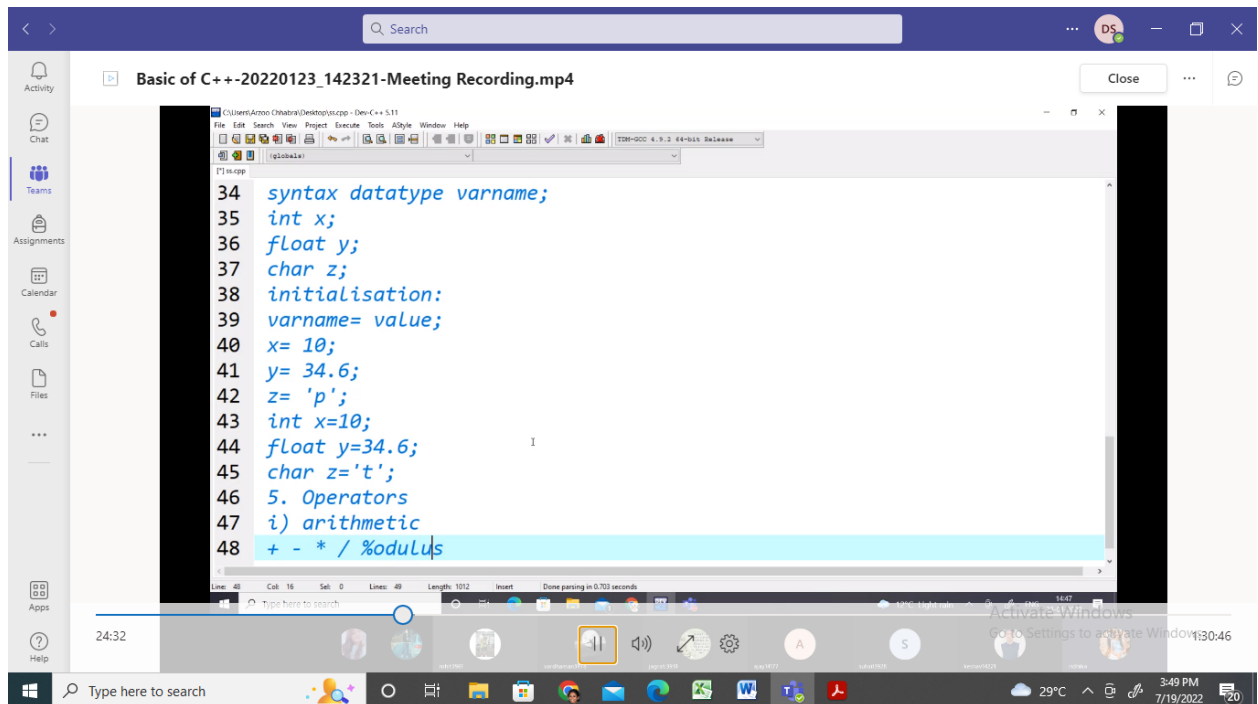
Email id: ridhikachhabra2001@gmail.com

January 23, 2022: Introduction to C++ : Topics covered

- What is C++? Why C++? Where C++?
- Installation of C++ (DevC++)
- Defining Variables
- Character set
- Tokens

	A	B	C	D	E	F	G	H	I	J
1	Meeting Summary									
2	Total Num	21								
3	Meeting Title									
4	Meeting S	1/23/2022, 1:56:09 PM								
5	Meeting E	1/23/2022, 3:59:58 PM								
6	Meeting Id	c72113ff-9395-4e77-8b3d-a6ea2e038807								
7										
8	Full Name	Join Time	Leave Time	Duration	Email	Role	Participant ID (UPN)			
9	ridhika	1/23/2022	1/23/2022	2h	ridhika766	Presenter	ridhika7667@hrc.edu.du.ac.in			
10	risha3991	1/23/2022	1/23/2022	11s	risha3991	Attendee	risha3991@hrc.edu.du.ac.in			
11	risha3991	1/23/2022	1/23/2022	22s	risha3991	Attendee	risha3991@hrc.edu.du.ac.in			
12	risha3991	1/23/2022	1/23/2022	19m 13s	risha3991	Attendee	risha3991@hrc.edu.du.ac.in			
13	ajay14177	1/23/2022	1/23/2022	1h 32m	ajay14177	Attendee	ajay14177@hrc.edu.du.ac.in			
14	RavikantPr	1/23/2022	1/23/2022	44s	ravikantpr	Organizer	ravikantprasad@hrc.edu.du.ac.in			
15	suhail3928	1/23/2022	1/23/2022	56s	suhail3928	Attendee	suhail3928@hrc.edu.du.ac.in			
16	suhail3928	1/23/2022	1/23/2022	1h 48m	suhail3928	Attendee	suhail3928@hrc.edu.du.ac.in			
17	sakshi437	1/23/2022	1/23/2022	43m 17s	sakshi437	Attendee	sakshi4371@hrc.edu.du.ac.in			
18	abhishek3	1/23/2022	1/23/2022	1h 54m	abhishek3	Attendee	abhishek3925@hrc.edu.du.ac.in			
19	keshav142	1/23/2022	1/23/2022	1h 50m	keshav142	Attendee	keshav14221@hrc.edu.du.ac.in			
20	ranjana14	1/23/2022	1/23/2022	4m 37s	ranjana14	Attendee	ranjana14223@hrc.edu.du.ac.in			
21	jishant	1/23/2022	1/23/2022	16m	jishant766	Attendee	jishant7663@hrc.edu.du.ac.in			
22	jishant	1/23/2022	1/23/2022	16s	jishant766	Attendee	jishant7663@hrc.edu.du.ac.in			
23	jagrati393	1/23/2022	1/23/2022	1h 38m	jagrati393	Attendee	jagrati3931@hrc.edu.du.ac.in			
24	rohit3961	1/23/2022	1/23/2022	1h 34m	rohit3961	Attendee	rohit3961@hrc.edu.du.ac.in			
25	kawaljit14	1/23/2022	1/23/2022	7m 19s	kawaljit14	Attendee	kawaljit14216@hrc.edu.du.ac.in			
26	vardhaman	1/23/2022	1/23/2022	1h 23m	vardhaman	Attendee	vardhaman3978@hrc.edu.du.ac.in			

Photograph



January 30, 2022: Basics of C++: Topics covered

- Printing "Hello" in C++
- Operators
- Swapping Variables
- Types of Operator
- Increment and Decrement

1	Meeting Summary								
2	Total Num	31							
3	Meeting T	General							
4	Meeting S	1/30/2022, 2:01:46 PM							
5	Meeting E	1/30/2022, 3:46:50 PM							
6	Meeting Id	db89826-e652-46ee-9308-f814b6d691aa							
7									
8	Full Name	Join Time	Leave Time	Duration	Email	Role	Participant ID (UPN)		
9	ridhika	1/30/2022	1/30/2022	1h 42m	ridhika766	Presenter	ridhika7667@hrc.edu.du.ac.in		
10	rohit3961	1/30/2022	1/30/2022	1h 41m	rohit3961	Attendee	rohit3961@hrc.edu.du.ac.in		
11	dheeraj39	1/30/2022	1/30/2022	1h 42m	dheeraj39	Attendee	dheeraj3927@hrc.edu.du.ac.in		
12	nikhil4500	1/30/2022	1/30/2022	27m 5s	nikhil4500	Attendee	nikhil4500@hrc.edu.du.ac.in		
13	vikas4016	1/30/2022	1/30/2022	1h 39m	vikas4016	Attendee	vikas4016@hrc.edu.du.ac.in		
14	mayank39	1/30/2022	1/30/2022	1h 35m	mayank39	Attendee	mayank3918@hrc.edu.du.ac.in		
15	harish141	1/30/2022	1/30/2022	3m 46s	harish141	Attendee	harish14179@hrc.edu.du.ac.in		
16	billu3941	1/30/2022	1/30/2022	9s	billu3941	Attendee	billu3941@hrc.edu.du.ac.in		
17	nirmal391	1/30/2022	1/30/2022	2m 36s	nirmal391	Attendee	nirmal3915@hrc.edu.du.ac.in		
18	ritik3948	1/30/2022	1/30/2022	36s	ritik3948	Attendee	ritik3948@hrc.edu.du.ac.in		
19	anil3943	1/30/2022	1/30/2022	18s	anil3943	Attendee	anil3943@hrc.edu.du.ac.in		
20	chirag3935	1/30/2022	1/30/2022	16s	chirag3935	Attendee	chirag3935@hrc.edu.du.ac.in		
21	shubham3	1/30/2022	1/30/2022	32s	shubham3	Attendee	shubham3994@hrc.edu.du.ac.in		
22	yogesh762	1/30/2022	1/30/2022	41s	yogesh762	Attendee	yogesh7620@hrc.edu.du.ac.in		
23	tamanna3	1/30/2022	1/30/2022	5m 32s	tamanna3	Attendee	tamanna3911@hrc.edu.du.ac.in		
24	ankit3937	1/30/2022	1/30/2022	1h 26m	ankit3937	Attendee	ankit3937@hrc.edu.du.ac.in		
25	abhishek3	1/30/2022	1/30/2022	1h 25m	abhishek3	Attendee	abhishek3987@hrc.edu.du.ac.in		
26	vishnu394	1/30/2022	1/30/2022	1h 24m	vishnu394	Attendee	vishnu3946@hrc.edu.du.ac.in		
27	priyanshu	1/30/2022	1/30/2022	37s	priyanshu	Attendee	priyanshu14237@hrc.edu.du.ac.in		
28	satendra3	1/30/2022	1/30/2022	8m 10s	satendra3	Attendee	satendra3917@hrc.edu.du.ac.in		
29	mayank76	1/30/2022	1/30/2022	54s	mayank76	Attendee	mayank7627@hrc.edu.du.ac.in		
30	vishal3958	1/30/2022	1/30/2022	49s	vishal3958	Attendee	vishal3958@hrc.edu.du.ac.in		
31	amit4036	1/30/2022	1/30/2022	1m 14s	amit4036	Attendee	amit4036@hrc.edu.du.ac.in		
32	harsh3965	1/30/2022	1/30/2022	1m 11s	harsh3965	Attendee	harsh3965@hrc.edu.du.ac.in		

Photograph

