

Ref. No. IKG-PTU/DA/ 3239

Date: 03/11/2021

#### **UPGRADATION ORDERS**

As approved, by the competent authority of IKGPTU following students are allowed to change their branch in 3<sup>rd</sup> Semester of B.Tech.programme as mentioned against each:-

Sr. No	Name of the student	University Roll No	College Name	Branch before Up Gradation	Branch after Up Gradation
1.	MD Nadeem Alam	2000028	Amritsar College of Engineering and Technology Amritsar	CE	ME
2.	Navreet	2000287	Amritsar College of Engineering and Technology Amritsar	ME	CSE
3.	Robert Antony	2026294	Apeejay Institute of Management & Engineering Jalandhar	CSE	IOT Cyber Security
4.	Suvir Punj	2026297	Apeejay Institute of Management & Engineering Jalandhar	CSE	IOT Cyber Security
5.	Aryan Sharma	2026285	Apeejay Institute of Management & Engineering Jalandhar	CSE	IOT Cyber Security
6.	Mansi Rani	2026292	Apeejay Institute of Management & Engineering Jalandhar	CSE	IOT Cyber Security
7.	Manjot Kaur	2026291	Apeejay Institute of Management & Engineering Jalandhar	CSE	IOT Cyber Security
8.	Kamalpreet Kaur	2026289	Apeejay Institute of Management & Engineering Jalandhar	CSE	IOT Cyber Security
9.	Anurag Sharda	2026284	Apeejay Institute of Management & Engineering Jalandhar	CSE	B.Tech. (AIML)
10.	Harsh Mankotia	2026288	Apeejay Institute of Management & Engineering Jalandhar	CSE	B.Tech. (AIML)
11.	Akshit Mittal	2026282	Apeejay Institute of Management & Engineering Jalandhar	CSE	B.Tech. (AIML)
12.	Japanjot Singh	2001377	Baba Banda Singh Bahadur Engineering College Fatehgarh Sahib	EE	CE

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13.	Japamitoz Singh	2001400	Baba Banda Singh Bahadur Engineering College Fatehgarh Sahib	ECE	CSE
14.	Jaipal SIngh	2001399	Baba Banda Singh Bahadur Engineering College Fatehgarh Sahib	ECE	CSE
15.	Sukhchain Singh	2001410	Baba Banda Singh Bahadur Engineering College Fatehgarh Sahib	ECE	CSE
16.	Avneet Kaur	2002016	BGIET Sangrur	ECE	CSE
17.	Gagandeep Kaur	2002018	BGIET Sangrur	ECE	EE
18.	Khushi Modi	2003347	CEC Landran	IT	CSE
19.	Ishika Raj	2002711	CEC, Landran	ECE	CSE
20.	Nandni	2003354	CEC, Landran	IT	CSE
21.	Kriti Gupta	2002723	CEC Landran	ECE	CSE
22.	Gunjan Jain	2003339	CEC, Landran	IT	CSE
23.	Kritika Arora	2003349	CEC, Landran	IT	CSE
24.	Monish Azeem	2002736	CEC Landran	ECE	IT
25.	Mohani Kumari	2002732	CEC Landran	ECE	IT
26.	Anjali Aggarwal	2002675	CEC, Landran	ECE	IT
27.	Mohani Kumari	2002732	CEC, Landran	ECE	IT
28.	Aaryan Budhiraja	2003319	CEC, Landran	B. Tech. IT (2 <sup>nd</sup> Shift)	B. Tech. CSI 2 <sup>nd</sup> Shift
29.	Chirag Gupta	2003330	CEC, Landran	B. Tech. IT (2 <sup>nd</sup> Shift)	B. Tech. CSI 2 <sup>nd</sup> Shift
30.	Tanvi	2002785	CEC, Landran	B. Tech. ECE (2 <sup>nd</sup> Shift)	B. Tech. CSI (2 <sup>nd</sup> Shift)
31.	Aditya Kumar Pandey	2002661	CEC, Landran	B. Tech. ECE (2 <sup>nd</sup> Shift)	B. Tech. IT (2 <sup>nd</sup> Shift)
32.	Prikshit Singh	2002746	CEC, Landran	B. Tech. ECE (2 <sup>nd</sup> Shift)	B. Tech. IT (2 <sup>nd</sup> Shift)
33.	Jaskirt Singh	2002715	CEC, Landran	B. Tech. ECE (2 <sup>nd</sup> Shift)	B. Tech. IT (2 <sup>nd</sup> Shift)
	Ajay Partap Singh	2026861	Chandigarh Engineering College Jhanjeri	Civil	ECE
35.	Ruchi Singh	2027117	Chandigarh Engineering College Jhanjeri	ME	AIML
36.	Mohd. Obaid Beigh	2027801	Gulzar Group of Institute of Engineering & Tech., Khanna, Ludhiana	CSE	CE
37.	Arshdeep Singh	2023773	IKG Amritsar Campus Amritsar	ME	CSE
38.	Mohit Kumar	2022400	IKGPTU Hoshiarpur Campus	ME	Civil

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39.	Anoopjeet Singh 2022388 IKGPTU Hoshiarpur Campus		ME	Civil	
40.	Omesh Virdi	2022406 IKGPTU Hoshiarpur Campus		ME	Civil
41.	Vikash Kumar			CSE	Civil
42.	2. Abhishek Anand 2005427		Indo Global College of Engineering Abhipur Mohali	ME	CSE
43.	Chadik Taku 2005395 Indo Global College of Engineering Abhipur			ECE	Civil
44.	Ritesh Sinha	2006070	MIMIT, Malout	IT	CSE
45.	Mahlohonolo Mokhamo	2026596	PCTE Institute of Engineering & Technology Jhande	CSE	ME
46.	Dipendra Kumar Ray			Civil	ME
47.	Vinayak	2007316 Rayat Group of Institutions Railmajra		ME	CSE
48.	Akhilesh Kumar	khilesh Kumar 2006874 Rayat-B. Engg. & Hoshiar		CE	CSE
49.	Vaibhav Sharma			CSE	EEE
50.	Raunak Kumar 2007656 S S S S		Shaheed Bhagat Singh State University (Formerly Shaheed Bhagat Singh State Technical Campus) Ferozepur	ME	CSE
51.	1. Mohit Kumar 2007533		Shaheed Bhagat Singh State University (Formerly Shaheed Bhagat Singh State Technical Campus) Ferozepur	CSE	EE
52.	Daljeet Singh			ME	CSE
53.	Ashish Malhotra 2008640		Swami Vivekanand Institute of Engineering & Technology	ME	CSE
54.	Ankit Prajapati	2008543	Swami Vivekanand Institute of Engineering & Technology	ECE	CSE

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55.	Prince Pandey	2008546	Swami Vivekanand Institute of Engineering & Technology	ECE	CSE
56.	5. Adity Tripathi 2008542 Swami Vive Institute of		Swami Vivekanand Institute of Engineering & Technology	ECE	CSE
57.	Asif Ahmed Khan	2008544	Swami Vivekanand Institute of Engineering & Technology	ECE	CSE
58.	Ayush Aryan	2008474	Swami Vivekanand Institute of Engineering & Technology	CSE	Civil
59.	Madasar Hussain Shah	2019700	Tawi Engineering College Shahpurkandi	EE	Civil
60.	Adarsh Kumar	2019702	Tawi Engineering College Shahpurkandi	ECE	Civil
61.	Nikhil Singh	2019704	Tawi Engineering College Shahpurkandi	ME	CSE
62.	Rohit Singh	2019705	Tawi Engineering College Shahpurkandi	ME	CSE
63.	Raunak Kumar	2007656	Shaheed Bhagat Singh The Campus	ME	CSE
64.			Shaheed Bhagat Singh The Campus	CSE	EE
65.	Himanshu Jaggi	2008157	Swami Sarvanand ins Management & Tech, Dinanagar	ECE	CSE
66.	Abhay Madaan	2004398	GNDEC Ludhiana	CE	CSE
67.	Guneet Kaur	2004813	GNDEC Ludhiana	ECE	CSE
68.	Kunwar Chetan Singh	2004826	GNDEC Ludhiana	ECE	CSE
69.	Raunak Raj	2004976	GNDEC Ludhiana	IT	CSE
70.	Ritesh Kumar	2004978	GNDEC Ludhiana	IT	CSE
71.	Abhay Sexena	2005016	GNDEC Ludhiana	ME	ECE
72.	Abhishek Kumar Singh	2005018	GNDEC Ludhiana	ME	ECE
73.	Khushpreet Singh Phangura	2005071	GNDEC Ludhiana	ME	ECE
74.	Nisha Goyal	2005233	GNDEC Ludhiana	ME (Prod.)	ECE
75.	Nitesh Kumar	2004454	GNDEC Ludhiana	CE	ECE
76.	Sagar Gaba	2004980	GNDEC Ludhiana	IT	ECE
77.	Sakshi Dhall	2004473	GNDEC Ludhiana	CE	ECE
78.	Shivank Shukla	2005106	GNDEC Ludhiana	ME	ECE

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79.	Sudhanshu Ranjan	2004483	GNDEC Ludhiana	CE	ECE
80.	Aman Kumar	2004794	GNDEC Ludhiana	ECE	IT
81.	Anirudh Khajuria	2004705	GNDEC Ludhiana	EE	IT
82.	Hanish Singh	2004428	GNDEC Ludhiana	CE	IT
83.	Kumar Abhinav	2004825	GNDEC Ludhiana	ECE	IT
84.	Nitisha Kumari	2004835	GNDEC Ludhiana	ECE	IT
85.	Palakpreet Kaur	2004836	GNDEC Ludhiana	ECE	IT
86.	Ravi Ranjan Kumar	2004852	GNDEC Ludhiana	ECE	IT
87.	Suraj Kumar	2004865	GNDEC Ludhiana	ECE	IT
88.	Jaskirat Singh Birdi	2005231	GNDEC Ludhiana	ME (Prod.)	ME

Students opting upgradation/change of branch have to qualify the bridge courses as per Notification No. IKGPTU/Reg/NF/2101 dated 24.05.2019 (copy enclosed) within one year from the date of change of branch.

Dr. Nitya Sharma 28 10 21. Dy. Controller (Academics)

## A copy is forward to:

- 1. Incharge VC, Secretariat for the kind information of the Vice-Chancellor.
- 2. Registrar for information please.
- 3. Dean (Academics)
- 4. Controller of Examinations
- 5. Dean (Faculty Welfare)
- 6. Incharge, IKGPTU Main Campus and Constituent Campuses (with request to circulate to all HODs)
- 7. Principal/Director of concerned college/ Institute.
- 8. Incharge Computer Section for uploading on University website.

# **L GUJRAL PUNJAB TECHNICAL UNIVERSITY**

Estd. Under Punjab Technical University Act, 1996 (Punjab Act No. 1 of 1997)

Ref. No. : IKGPTU/Reg/NF/ 2/0/

Dated : 24.05.2019

## NOTIFICATION

# Sub: Change / upgradation of branch in 3rd semester of B. Tech program.

The student who opt for change/ updgration of branch in 3<sup>rd</sup> Semester of B. Tech w.e.f. admission session 2018-2019 onwards within College/Institute affiliated to IKGPTU, shall have to study the bridge course / additional subjects as per following guidelines:

## **A- For Mathematics**

- Two Bridge courses (Bridge course-I, II) have been formulated in Mathematics for change of branch. Bridge Course-I should be opted by the students shifting the branch within the departments of Mechanical Engineering, Civil Engineering, Electrical Engineering and Electronics & Communication Engineering and related branches. The list of related branches is enclosed at Annexure-I.
- 2. For shifting the branch from any of the above said departments to Computer Science and Engineering, the students should opt for Bridge Course-II.
- 3. The student shifting the branch from Computer Science Engineering to any of the above said branches of Mechanical Engineering, Civil Engineering, Electrical Engineering, Electronics and Communication Engineering students should opt Bridge Course-I.
- 4. Both the Bridge Courses should be audit/qualifying courses and no extra credit be awarded to students qualifying these courses.
- 5. These courses should be evaluated by the concerned teacher allocated to teach this course through internal evaluation. The evaluation of these courses should be done at college/departmental level as no extra credits are to be awarded to the students.

I. K. Gujral Punjab Technical University, Jalandhur Page 1 of 6 Jalundhar Kapurthala Highway, Near Pushpa Gujral Science City, Kapurthala - 144 603 Ph. No. 01822 - 662521, 662501 Fax No. : 01822-255506, 662526, Email : registrar@ptu.ac.in Concerned teacher should be given 2 hours load per week for teaching the bridge course.

- 7. No extra credit should be awarded to the student for qualifying the course.
- 8. The audit/qualifying course should have to be qualified by the students within one year of change of branch.
- 9. The institute shall issue a certificate that the student has passed additional / Bridge Course successfully.
- 10. Upon certification by teacher for qualifying the audit course/s (theory and practical), earlier issued result notification/s and DMCs of the concerned student shall be cancelled and the Examination Department of IKGPTU shall issue new result notification and DMCs as per upgraded curriculum with same number of credits.

#### **B. For Physics:**

1. In Physics no Bridge Course or Qualifying course is required if the students opt for shifting of branch within the following groups:

Group	Branch	Shifted to Branch & Vica- Versa
I	Computer Science	Electronics and Communication
II	Electrical Engineering	Chemical Sciences
III	Chemical Sciences	Biotechnology

- 2. If the student opts for shifting of branch outside the above mentioned groups, then he/she is required to qualify the complete course of physics (theory and practical) of previous semester of the opted branch.
- 3. No extra credit should be awarded to the student for qualifying the course.
- 4. These courses should be evaluated by the concerned teacher allocated to teach this course through internal evaluation. The evaluation of these courses should be done at college/departmental level as no extra credits are to be awarded to the students.

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- Concerned teacher should be given 2 hours load per week for teaching the bridge course.
- The audit/qualifying course should have to be qualified by the students within one 6. year of change of branch.
- The institute shall issue a certificate that the student has passed additional / Bridge 7. Course successfully.
- Upon certification by teacher for qualifying the audit course/s (theory and practical), 8. earlier issued result notification/s and DMCs of concerned student shall be cancelled and the Examination Department of IKGPTU shall issue new result notification and DMCs as per upgraded curriculum with same number of credits.

Encl: Total 04 pages

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(Dr.-S.S. Walia) Registrar

Endst. No. IKGPTU/REG/NF/2/02-2105

Dated: 24.05.2019

A copy is forwarded to the following officers for information please.

- 1. I/c Secretariat, O/o Vice Chancellor: For information of Vice Chancellor
- 2. All HoDs (Non-Teaching)
- 3. Director (Main Campus): To inform the all HoDs (Teaching) and Incharge, all Constituent
- 4. Director, IKGPTU Hoshiarpur Campus

S. S. Walla) Registrar

or. No.	Branch	Related Branches
1	Civil Engineering-	1. Civil Engineering
		2.Construction Engineering & Management
2	Electrical Engineering-	1.Electrical Engineering
		2.Automation & Robotics
		3.Electrical & Electronics Engineering
		4. Electronics & Electrical Engineering
		5. Electrical Engineering & Industrial Control
		6.Instrumentation & Control Engineering
3	Mechanical Engineering	1.Mechanical Engineering
		2.Marine Engineering
		3. Production Engineering
		4.Industrial Engineering
		5. Tool Engineering
		6.Automobile Engineering
		7.Aerospace Engineering
		8.Aeronautical Engineering
4	Computer Science	1.Computer Engineering
	Engineering	2.Computer Science Engineering
		3.Information Technology
		4.3D Animation Engineering
5	Electronics and	1.Electronics & Communication Engineering
	communication Engineering	2. Electronics & Computer Engineering
		3.Electronics & Instrumentation Engineering
		4.Electronics & Telecomm Engineering
		5.Electronics Engineering
6	Chemical Sciences	1.Chemical Engineering
		2.Petrochem & Petroleum Refinery Engineering
		3. Textile Engineering
;		4.Food Technology
	Bio-Technology-	Bio-Technology

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## Bridge Course-I

### Subject Code: BTAMBC1-18

#### Section-A

# **Unit-I: Partial Differential Equations**

Introduction to PDEs, Lagrange's Equation, Classification of PDEs, D' Alembert's solution of wave equations, heat equations and their solutions by variable separable method and Fourier series, Solution of boundary-value problems for various linear PDEs.

## **Unit-II: Numerical Methods**

Solution of polynomial and transcendental equations – Bisection method, Regula-Falsi method, Newton-Raphson method, System of linear equations: Gauss elimination method, Gauss Seidel method, Numerical integration: Trapezoidal rule and Simpson's 1/3rd and 3/8 rules, Ordinary Differential equations: Euler and modified Euler's methods, Runge-Kutta method of fourth order for solving first order equations.

#### Section-B

# Unit-III: Complex Variable – Differentiation

Elementary functions of complex variables, limit, continuity and differentiability, Cauchy-Riemann equations, analytic functions, harmonic functions, finding harmonic conjugate.

# Unit-IV: Complex Variable – Integration

Contour integrals, Cauchy-Goursat theorem (without proof), Cauchy Integral formula (without proof), Liouville's theorem and Maximum-Modulus theorem (without proof), Taylor's series, zeros of analytic functions, singularities, Laurent's series, Residues, Cauchy Residue theorem (without proof), Evaluation of definite integral involving sine and cosine.

### Text / References:

- 1. Sneddon, I.N., *Elements of Partial Differential Equation, 3<sup>rd</sup> Edition.* McGraw Hill Book Company, 1998.
- Copson, E.T., Partial Differential Equations, 2<sup>nd</sup> Edition. Cambridge University Press, 1995.
- 3. Strauss, W.A., Partial Differential Equations: An Introduction, 2<sup>nd</sup> Edition. 2007.
- Sharma, J.N., Numerical Methods for Engineers and Scientists, 2<sup>nd</sup> Edition. Narosa Publ. House New Delhi/Alpha Science International Ltd., Oxford UK, 2007, Reprint 2010.
- 5. Jain, M.K., Iyengar, S.R.K. and Jain, R.K., *Numerical Methods for Scientific and Engineering Computation, 5<sup>th</sup> Edition. New Age International Publ.* New Delhi, 2010
- 6. Ahlfors, L.V., Complex Analysis, 2<sup>nd</sup> Edition. McGraw-Hill International Student Edition, 1990.
- 7. Kumar, R.R., Complex Analysis, Pearson Education, 2015.
- 8. Churchill, R. and Brown, J.W., *Complex Variables and Applications, 6<sup>th</sup> Edition.* New-York: McGraw-Hill, 1996.

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#### Bridge Course-II

## Subject Code: BTAMBC2-18

**Unit-I:** Measures of Central tendency: Moments, skewness and kurtosis, Variance, Correlation coefficient, Probability, conditional probability, independence; Discrete random variables.

**Unit-II:** Continuous random variables, Probability distributions: Binomial, Poisson and Normal, Poisson approximation to the binomial distribution, evaluation of statistical parameters for these three distributions.

**Unit-III:** Correlation and regression for bivariate data, Rank correlation, Curve fitting by the method of least squares- fitting of straight lines, second degree parabolas and more general curves. Test of significance for small and large samples (z-test, t-test, F-test and Chi-square test).

#### Text / References:

- 1. Hoel, P. G., Port, S. C. and Stone, C. J., *Introduction to Probability Theory*, Universal Book Stall, 2003 (Reprint).
- 2. Ross, S., A First Course in Probability, 6th Ed., Pearson Education India, 2002.
- 3. Feller, W., An Introduction to Probability Theory and its Applications, Vol. 1, 3<sup>rd</sup> Ed., Wiley, 1968.
- 4. Bali, N.P. and Goyal, M., A text book of Engineering Mathematics, Laxmi Publications, Reprint, 2010.