

JOINING INSTRUCTIONS

UNDERGRADUATE NUST STUDENTS (SESSION 2023)

1. **General.** Military College of Signals (MCS), a prestigious constituent college of the National University of Sciences and Technology (NUST), is one of the premier educational institution of the Pakistan Army and a venerated place of erudition and learning in the field of Electrical Engg, Software Engg and Information Security. The Commandant, Military College of Signals (MCS), passes on his best wishes to you on your meritorious selection in the undergraduate program and welcomes your joining to this institution.

2. **Location/Address/E-mail/Website**

- a. **Location:** MCS is situated on the junction of Humayun Road and Khadim Hussain Raod, Rawalpindi Cantt at a distance of approximately 28 kilometers from Benazir Bhutto International Airport and 4 kilometers from Rawalpindi Railway Station. A sketch showing the location of MCS and the Cadets Hostel is attached as **Annex -A** to these instructions.
- b. **Postal Address:** Military College of Signals, Humayun Road, Rawalpindi Cantt, Postal Code 46000.
- c. email: mcs@nust.edu.pk
- d. Web site : www.mcs.nust.edu.pk

3. **Important Telephone Numbers**

S#	Designation	Contact No	Email Address
a.	Dr Imran Rashid, Chief Instructor, Engineering Wing	051-9272102	irashid-mcs@nust.edu.pk
b.	Dr Asif Masood, Dean, Engineering Wing	051-5564048	amasood@mcs.edu.pk
c.	Dr Adnan Ahmed Khan , Head of Department of Computer Software Engineering	051-9270284	adnankhan@mcs.edu.pk
d.	Dr Aadil Masood, Head of Department of Electrical Engineering	0519272948	dradil@mcs.edu.pk
e.	Assoc Prof Dr Muhammad Faisal Amjad, PhD Head of Department of Information Security	051-9270097	faisal@nust.edu.pk
f.	Engr Waqas Ahmed, SO (Academic) Engineering Wing	-	waqassignals@gmail.com
g.	Engr Nisar Ahmed SO (Academic) Engineering Wing		nisarahmedcomsats@gmail.com
h.	Dr Babur Aslam, Staff Officer (NUST Affairs)	051-9272097	mcs@nust.edu.pk

4. **Reporting on Arrival.** All the students are required to report at Military College of Signals, Humayun Road, Rawalpindi, on **Monday, 9 October 2023 at 0900hrs.** Reception plan for the new arrivals is attached as **Annex - B** to these instructions.

5. **Inability to Join on Due Date.** In case a student is unable to join on the due date on account of some unavoidable circumstances, he/she must inform the College authorities immediately on address/telephone numbers mentioned at para 3.

6. **Organisation and Faculty/Staff**

a. **College Organisation** :MCS is structured into four wings namely Administration Wing, Combat Wing, Engineering Wing and Research & Development Wing. Engineering Wing is responsible for the conduct of all academic programmes under NUST. A list of college administration is attached as **Annex – C.**

b. **Faculty and Staff:**All faculty members are highly qualified from the best universities of the world and have been selected on the basis of their professional acumen, expertise and proficiency. The administrative staff ensures smooth administration of the students and the faculty. A List of faculty and administrative staff can be viewed on the MCS website www.mcs.nust.edu.pk.

7. **Documentations Required on Arrival.** Before reporting for degree programs in MCS, students are required to complete below mentioned documents and bring on first day.

a. Signup at **<https://reg.mcs.edu.pk>** and fill in the online registration form. Take two prints of these forms and bring along on first day. Facility of online registration will be available at the reception also. However, this will cause delay and inconvenience to the students.

b. **STUDENTS MUST BRING ORIGINAL DEGREE OF MATRIC, FSC DEGREE. IN CASE OF O/A LEVEL STUDENTS MUST BRING "STATEMENT OF RESULTS" OF A LEVEL AND ORIGINAL O LEVEL IBCC ON FIRST DAY. STUDENTS WITHOUT THE ORIGINAL DEGREES WILL BE RETURNED BACK WITHOUT REGISTRATION.**

c. 4 x photocopies of the degrees duly attested by a Class-1 gazetted officer

d. Undertaking (affidavit) on a judicial paper (stamp paper) worth Rs.100/- each as per specimen attached as **Annex –D**,duly attested by a Class-1 Magistrate.

Two such copies of the undertaking (both signed) duly completed in all respects should be submitted on first day.

- e. Medical Fitness Certificate (Specimen attached as **Annex- E**), to be signed by govt hospital doctor.
- f. Photographs (Passport-size and 1"x1") - 4 each.
- g. 4 x photocopies of Computerized National Identity Card (CNIC) or Form – B.
- h. Certificate for not involving in political/sectarian activities (**Annex - F**).
- i. 4 x photocopies of Discharge Certificate/Pension Book (Ward of Military Personnel only).

8. **Admission Conditions.** On completion of above mentioned requirements, students will be admitted to the Military College of Signals (NUST) on provisional basis. The confirmation of admission is subject to the verification of original degrees/certificates from the awarding/issuing authorities. Students are hereby cautioned that if at any stage, the documents submitted by them are found to be false/ forged; he/she will be expelled from the College with forfeiture of all the dues. The student shall also be liable to legal action as deemed necessary by the College authorities.

9. **Fee Structure**

a. **Tuition Fee**

- (1) Tuition fee (Rs 151700/- per semester) is payable on semester basis. **STUDENTS HAVE TO PAY THEIR FEE IN ADVANCE BEFORE THE COMMENCEMENT OF SEMESTER OTHERWISE THEY WILL NOT BE ELIGIBLE TO SIT IN THE CLASS.**
- (2) Fee for the 1st semester is collected by Main Office NUST. Rest of the tuition fee is required to be deposited in designated branches through Bank Challan Form issued by Main Office NUST and delivered through CMS account. College copy of the Bank Challan Form is required to be deposited in MCS (respective department).

a. **Hostel Charges**

- (1) **NUST Students Living in Hostel (Male) – Hired Accommodation**
Application form for Hostel Accommodation Male is attached as **Annex G**
- (2) **NUST Students Living Out (Male)** Nil
- (3) **NUST Students Living in Hostel (Female) – Fatima Company**

Application form for Hostel Accommodation Female is attached as
Annex H

(4) **NUST Students Living Out (Female)**

Nil

10. **Duration of Undergraduate Degree Programme**

- a. Credit hours to be completed : At least 136
- b. Total semesters : At least 8 (4 calendar years)
- c. One semester's duration : 16Weeks

11. **Examination and Grading Policy.** Military College of Signals, like other leading institutions, follows Semester System of Education which is more exigent and challenging than the Annual System of Education. It is a continuous assessment system, therefore, students need to study on regular basis throughout the semester as they have to take a number of tests and assignments for each subject during the semester. The students are evaluated and assessed on Relative Grading (cluster based) System. Letter grades and equivalent grade points are given below:

Letter Grade	Grade Points
A	4.00
B+	3.5
B	3.0
C+	2.5
C	2.0
D+	1.5
D	1.0
F	ZERO

The passing grade in each subject is 'D'. In this system, Semester Grade Point Average (SGPA) is computed on the basis of grades obtained in each semester:

$$SGPA = \frac{\text{Sum (Grade Point s obtained in each subject} \times \text{Subject's Credit Hours)}}{\text{Total credit hours studied in the semester}}$$

Promotion to the next semester is based on the student's Cumulative Grade Point Average (CGPA)

$$CGPA = \frac{\text{Sum (Grade Point s obtained in each subject} \times \text{Subject's Credit Hours)}}{\text{Total credit hours studied in the degree programme}}$$

A minimum CGPA required to qualify for the award of degree is 2.00/4.00. All examination rule and regulation are governed by the latest NUST statute.

12. **College Facilities**

a. **Boy's Hostel**

- (1) **Accommodation.** Three boy's hostels are available which can accommodate approximately 200 male students. Accommodation will be provided strictly on first come first served basis. Rest of the students will arrange accommodation at their own. All those students living in hostel accommodation are required to bring along private dress as per **Annex I.**
- (2) **Messing.** Dining facility is available in the hostels and the boarders enjoy the tranquility and fine meals in the dining room of the mess. All meals are served to in-living students @ Rs 130/= to 140/= (on the average) on daily basis. However, these rates are subject to revision as per requirement.
- (3) **Recreation.** College provides best possible recreation facilities to the students in the form of indoor and outdoor games. Facilities for indoor games include Table Tennis, Badminton and a well equipped Gymnasium. For outdoor sports, tennis, hockey, football, basketball and cricket grounds are available. TV room and newspaper facility is also available to make the evenings pleasant and enjoyable.
- (4) **Valuables.** It is not advisable to bring valuable articles/items with you to the College. Military College of Signals holds no responsibility for safe custody of any valuables.

b. **Girl's Hostel**

- (1) **Accommodation.** One hostel is available which can accommodate approximately 67 female students. Accommodation is provided strictly on first come first served basis. Rest of the female students will arrange accommodation at their own.
- (2) **Messing.** Dining facility is available and the boarders enjoy the tranquility and fine meals in the mess. All meals are served to in-living students @ Rs.120–130 (on the average) on daily basis. However, these rates are subject to revision as per requirement.
- (3) **Recreation.** Within the premises of hostel facilities like newspapers, TV lounge and Badminton court area available.
- (4) **Valuables.** It is not advisable to bring valuable articles/items with you to the College. Military College of Signals holds no responsibility for safe custody of any valuables.

13. **College Transport.** Pick and drop facility, on payment, is provided by the college to as many students as possible. Separate application along with home address is required to be provided to Commanding Officer Military College of Signals Training Battalion. It is worth mentioning that students living in hostel accommodation are not permitted to keep any type of personal transport.
14. **Class Rooms/ Lecture Halls.** All class rooms/ lecture halls are fully air conditioned and adequately furnished. In order to provide a conducive environment state-of-the-art audio visual aids have been installed in all class rooms.
15. **Library.** To facilitate its students a well-stocked library with internet facility is available at MCS. The library houses more than **50,000 books** and journals on the subjects relating to electronics, telecommunications, computers and literature etc. In addition to that the college subscribes to over **70 technical journals**, periodicals, magazines and newspapers from home and abroad. The library is also connected to the HEC's digital library. A brief on library will be included as a part of orientation visit on arrival.
16. **Laboratories.** Laboratory work is an integral part of engineering education. To supplement quality engineering education and understanding of the theoretical knowledge, a large number of well-equipped and state-of-the-art laboratories, covering all areas of IT and Telecom Engineering, are available. The labs at MCS stand second to none.
17. **Auditorium.** College auditorium (Nawaz Shaheed Auditorium) has a seating capacity of approximately 450 personnel. It is used for organizing various activities like movie shows, college functions including convocation, open house and declamation contests etc.
18. **Cafeteria.** Separate student cafeteria for gents and ladies, having spacious halls with proper sitting arrangement, are provided in college where different delicious food items and soft drinks area available at reasonable rate.
19. **Internet.** The use of the internet for teaching and learning purposes has received increasing attention over the recent years. It is a useful tool for faculty and students. A 24 hours internet service is made available to all the faculty members and students, both, at campus as well as their official residences to foster positive attitude towards learning.
20. **Student's Clubs/Societies.** MCS endows with an environment where intellect, art, character and resilience are fostered and cherished. In persistence of stabs to produce all-round professionals for the nation, mega events (like convocation, open house, spring festival, myriad, pantomime, concerts and workshops etc) and a number of other co-curricular activities are being organized throughout the year in the campus by Telecommunication and Software societies and Alumni Association. These events promote

awareness and inculcate sense of responsibility within the students and make their life vivacious and vibrant. Alumni association of the college named as“**SIGNALIANZ**” helps the students in establishing and launching industrial linkages and provides financial help to the needy students.

21. **Co-Curricular Activities.** Co-curricular activities inculcate the ability to work cooperatively with others. These activities help the students to work as a team and give them a sense of accomplishment. Besides, these give them a positive place to hang out and stay out of trouble. At MCS, students are provided with many platforms like Literary Club, Debating Society, Photography Club and Dramatics Club etc to take part in co-curricular activities and learn the life skills.

22. **DRESS REGULATIONS**

a. **Dress Male Students.** All students have to procure dress, as mentioned below according to the weather, on their own:-

(1) **Winter Dress**

- (a) NUST blazer (with MCS insignia)
- (b) White Shirt (full sleeves)
- (c) College neck tie
- (d) Trouser dark grey
- (e) Black socks
- (f) Black shoes oxford pattern
- (g) Name plate (Army Pattern)

(2) **Summer Dress**

- (a) White shirt (cotton and polyester mix) half/full sleeves
- (b) Light grey trouser (tropical)
- (c) Black socks
- (d) Black shoes oxford pattern
- (e) Name plate (Army Pattern)

b. **Dress Female Students** All students have to procure dress, as mentioned below according to the weather, on their own:-

(1) **Winter Dress**

- (a) NUST Blazer (with MCS insignia)
- (b) White Shalwar Kameez (cotton and polyester mix) with White

Dupatta of green border colours and black Hijab (optional)

- (c) White socks
- (d) Black shoes without heels
- (e) Name plate (Army Pattern)

(2) **Summer Dress**

- (a) White Shalwar Kameez with full sleeves (cotton and polyester mix) with White Dupatta of green border colours and black Hijab (optional).
- (b) White socks
- (c) Black shoes without heels.
- (d) Name plate (Army Pattern)

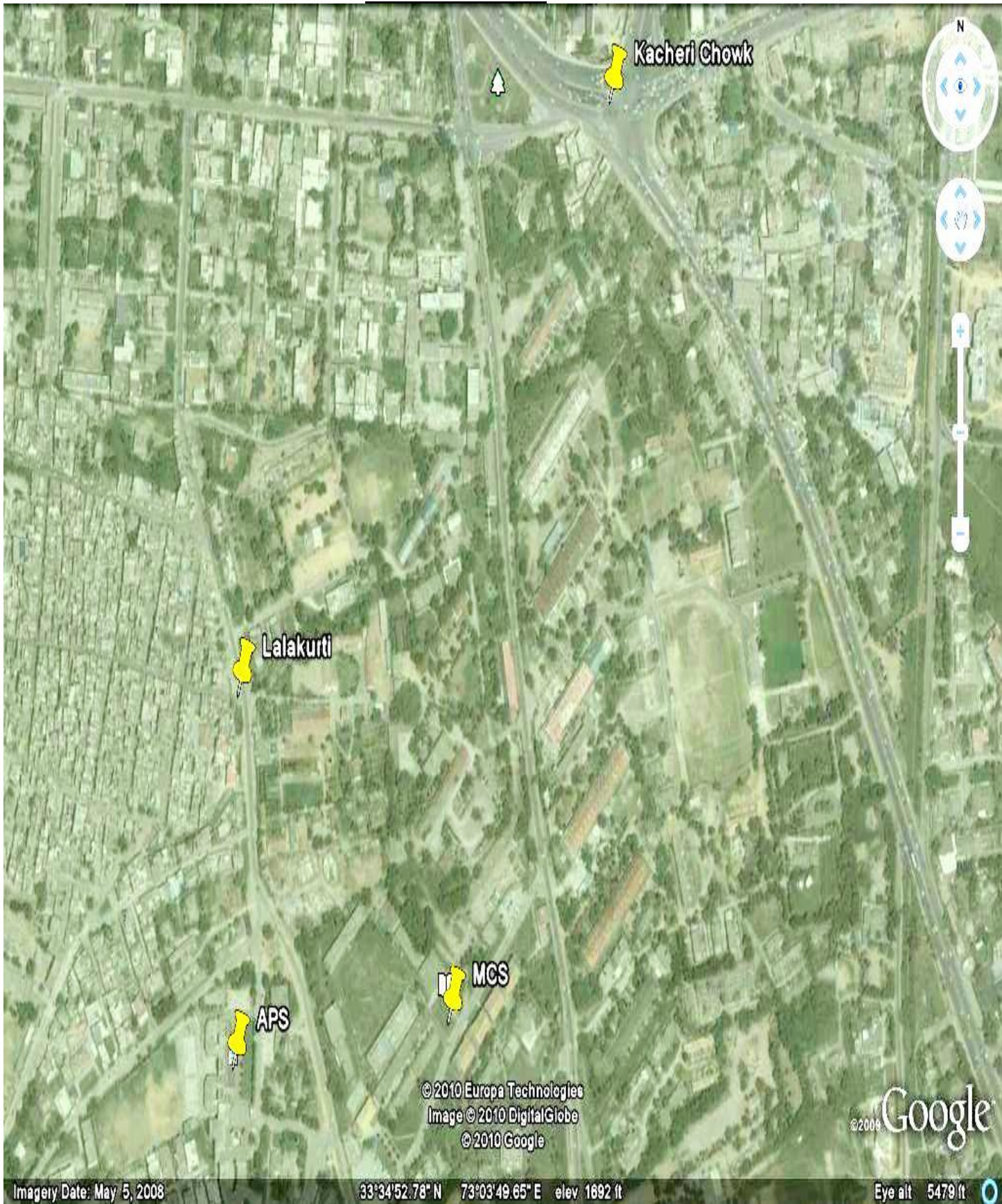
23. **Conduct of Academics at MCS.** A detailed briefing will be given about the conduct of academics, examinations/tests and associated regulations to the students at the start of the course. Subsequently, it will be repeated through the course advisors.

24. **Discipline.** For matters of discipline, there is no discrimination between NUST Cadets, Paying Cadets and Technical Cadets. Every individual is required to abide by all instructions contained in the NUST Statute or passed on from time to time through circulars/instructions from college authorities.

25. **Pre-Course Study.** The pre-course syllabus is attached as **AnnexJ**. Students are expected to fresh up these subjects. Semester wise details of subjects/credit hours for Software Engineering and Telecommunication Engineering are available in the prospectus and can also be down loaded from both web sites, i.e., www.nust.edu.pk and www.mcs.nust.edu.pk

26. **Final Note.** MCS warmly welcomes you to a challenging life of learning, discipline, self-motivation and mission accomplishment. It is hoped that you will find the environment friendly and conducive for erudition and learning. The college administration is eagerly waiting for you. In case of any problem, please do not hesitate to contact the college administration.

MCS GUIDE MAP



RECEPTION PLAN – UG COURSES (BEE – 60, BESE-29 & BEIS-4)

9 OCTOBER 2023

S/No	Details	Time	RV
1.	Arrival / Reception	0900-1000	Iftikhar Block (Seminar Hall)
2.	Registration, Filling of Forms/ Payment of Dues	1000-1200	Department of CSE Lecture Hall
3.	Briefing	1200-1300	Iftikhar Block (Seminar Hall)
4.	Visit of MCS	1300-1330	College Area
5.	Refreshments	1330-1400	Cafeteria
6.	Departure for Cadets Hostel (for in- living students)	1330 onward	Cadets Hostel



COLLEGE ADMINISTRATION

S#	Rank	Name	Designation
1.	Engr	Omer Khalid	Commandant
2.	Dr	Imran Rashid	Chief Instructor Engineering Wing
3.	Dr	Asif Masood	Dean
4.	Dr	Adnan Ahmed Khan	Head of Department of Computer Software Engineering
5.	Dr	Abdul Razzaque	Head of Department of Humanities and Basic Sciences
6.	Dr	Aadil Masood	Head of Department of Electrical Engineering
7.	Dr	Dr Muhammad Faisal Amjad,	Head of Department of Information Security
8.	Engr	Muhammad Mubashir Quddoos	General Staff Officer-1 (Exams)
9.	Engr	Waqas Ahmed	SO (Academic), Engineering Wing
10.	Engr	Nisar Ahmed	SO (Academic), Engineering Wing
11.	Dr	Babur Aslam, Staff Officer	General Staff Officer-I (NUST Affairs)
12.	Mr	Waqar UI Hassan	Assistant Adjutant & Quarter Master General
13.	Mr	Azmat Ullah	Adjutant
14.	Mr	Bilal Riaz	Mechanical Transport Officer

SURETY BOND

1. KNOW ALL MEN BY THESE PRESENT THAT I _____(herein after called the trainee) and surety _____(herein after called the surety) do hereby bind ourselves and each of us and heirs, executors and administrators to abide by the terms and conditions of NUST after having been selected against “civil student of NUST” seat at Military College of Signals.

2. During studies I (trainee) shall abide by the College discipline and rules, regulations and standing orders/procedures concerned and pay all expenses in due time. Any violation of these will make me (trainee) liable to be expelled from the College which shall be without right of appeal in any court of law. During studies if I (trainee) be expelled by the College on any ground, or deliberately fail will not be allowed to continue studies, I (trainee) will lose my seat in the College and would not be allowed to continue studies in any of the NUST institutions.

3. I (trainee) will abstain from any political activity during my tenure of studies at Military College of Signals. If I (trainee) found guilty of an act which is forbidden by NUST authorities will be liable for expulsion from the institution.

Trainee

Signature _____

Name _____

S/D/O _____

Designation/Status _____

Address _____

Surety (Parents/Guardian)

Signature _____

Name _____

S/D/O _____

Designation/Status _____

Address _____

Signature of the Class-1 Magistrate
(With stamp)

MEDICAL FITNESS CERTIFICATE

I, the undersigned hereby certify that
_____ S/O _____ CNIC No
_____ is not suffering from any communicable disease and is
healthy in all respects. He is also physically fit to undergo intense physical exercise/ activity.

Stamp

(Signature of Doctor)

AFFILIATION POLITICAL/SECTARIAN CERTIFICATE

It is certified that Mr/Mrs/Miss. _____ Son/Wife/Daughter of Mr.
_____, Resident of _____ is neither
affiliated with any political party nor involved in sectarian activities.

(Signature of Student)

(Signature of Class-1 Gazetted
Officer with Stamp)

Dated: _____

REQUEST FOR MCS HOSTEL ACCOMMODATION1. **Basic Data** (Capital word filling)

- a. NC/ PC/ ASC _____ Name _____ Male/ Female _____ Course _____
- b. NUST Merit No _____ Semester _____
- c. CNIC No _____
- d. Date of Birth _____
- e. Father's Name _____ Father occupation _____
- f. Guardian's Name _____ Guardian's occupation _____
- g. Ward of Shuhada (Yes/ No) _____ Ward of Orphan (Yes/ No) _____
- h. Disabled/ Special Student (Yes/ No) _____ Nature of Disability _____
- i. Permanent Address _____
- j. Postal Address _____
- k. Father/Mother/Guardian's Cell No _____
- l. Personal Contact No _____
- m. Landline Contact No _____
- n. Domicile _____
- o. Email Address _____

2. **Medical History**

- a. Do you have any specific medical issue (Yes/ No) _____
- b. If yes specify the disease you are suffering from _____

3. **Relatives Allowed to Meet the Student.** MCS does not allow any relative other than parents / guardians to meet the students living in hostels. In case parents want a specific relation of the students to meet her, please specify their particulars below:-

Ser	Name	Relation	CNIC	Contact #
a.				
b.				
c.				

4. **Hostel Security Deposit (Refundable)**

- a. Hostel Security (Refundable) of **Rs 30,000.00** will be remitted along with request for hostel accommodation through bank draft or Cash deposit in favour of **(PC NCs MCS) Rwp account # 164165050010-2 Askari Bank Ltd Lalkurti Branch, Rawalpindi**. The draft or cash deposit slip must be dispatched to **Cadets Wing Military College of Signals Rawalpindi**.
- b. Amount deposited on acct of refundable hostel security i.e (Rs 30,000) will be refundable on vacation of hostel.
- c. Minimum mandatory duration of stay in the hostel is 1 year. **(In case of vacation before completion of 1 year, hostel security will not be refunded).**
- d. **Note:** Submission of this form does not guarantee allotment of hostel. Accommodation will be allotted as per "NUST Hostel Allotment SOP" available on NUST website.

5. **Basic Hostel Rules & Regulation**

- a. All students must abide by hostel rules & regulations as per hostel SOP.
- b. In timings for students are as under:-
2030 hrs (female students)
2130 hrs (male students)
- c. Students are not allowed to stay outside hostel after above mentioned timings.
- e. All students must report back from weekend on Sunday before above mentioned timings.
- d. Students will only be allowed to proceed on leave / weekend with permitted visitors.
- f. Students will be allowed to obtain night pass during weekdays only under special circumstances / emergencies and after taking formal permission from Coy Comd / Warden.
- g. Visitors are not allowed inside hostel premises.
- h. A student can be warned / fined and even expelled from hostel on the grounds of violating the basic hostel rules or involved in any inappropriate activity / conduct which is morally or ethically wrong.
- i. Students will pay all the required hostel dues within the given deadline during semester breaks, all charges less messing will be deducted from students.
- j. **Students will retain hostel accommodation for complete academic year (till 31 August or the date notified otherwise). If any student wants to vacate the hostel during any stage of the academic year, he will be charged hostel dues for the complete academic year and hostel security will not be refunded.**

DECLARATION BY THE CANDIDATE

I _____ S/D/O _____ Course _____ Year _____ CNIC No _____
_____ Mobile No _____ declare that:-

- a. All information given in **Hostel Accommodation Form** are correct & true.
- b. I shall not extend my stay in hostel beyond my On-Campus time as mentioned in SOP.
- c. ***I have read and understood the rules and regulations regarding NUST / MCS anti-ragging policy and I undertake not to indulge, directly or indirectly, in any ragging activity inside the hostel premises. I shall report any ragging incident immediately to Hostel Manager / Company Commander. I may be expelled from hostel if found involved in any ragging incident.***
- d. I shall not allow any day scholar or outsider in my room.
- e. I shall not leave the hostel without prior permission of Hostel Manager / Company Commander and return to hostel before the prescribed time.
- f. ***If any breakage, damage is observed in my room inventory / hostel property or any item is misplaced, I shall be responsible to pay the total cost of broken / damaged or misplaced item in addition to fine as per SOP.***
- g. I shall not participate / attend un-official competitions, functions and trips without formal permission from parents, department and Cadets Wing. In case of violation; I shall be liable for suspension from the hostel or any other penalty / fine as decided by Cadets Wing.
- h. I shall not use electrical appliances, such as, electric kettle, heater, iron, emersion rod and if I am found using any of these items, I agree to be fined as per SOP.
- i. ***I shall not indulge in any immoral activity prohibited by NUST and MCS rules and will ensure that I am not in possession of any banned item given in para '32 c' of "MCS Hostels SOP".***
- j. I shall meet / go with only the authorized visitors permitted by my parents in para 4 of this form.
- k. ***In case of violation of any of the rules / policies / orders / instructions, necessary disciplinary action may be taken against me including expulsion / suspension from the hostel and / or even rustication from the College.***
- l. I have read the "MCS Hostel SOP" and I shall abide by all the rules and regulations mentioned in the SOP. Moreover, I shall also adhere to all the laid down procedures and instructions passed on to me from Cadets Wing from time to time.

Dated: _____

Signature of Candidate

DECLARATION BY THE PARENTS / GUARDIAN

I _____ F/O/M/O/G/O _____ CNIC No _____
_____ Mobile No _____ do undertake that I have studied the
“MCS Hostel SOP” and **I hereby fully endorse the above undertaking / declaration (para a to I) given
by my son / daughter** _____. I take full responsibility that my son / daughter will
ensure the above stated undertaking in true letter and spirit. I also undertake to pay / clear all his / her
hostel dues / subscriptions for the entire period of stay at the hostel in time.

Dated: _____

Signature of Parents / Guardian

DECLARATION BY THE CANDIDATE

I _____ S/D/O _____ Course _____

Year _____ CNIC No _____ Mobile No _____ declare that:-

- a. All information given in **Hostel Accommodation Form** are correct & true.
- b. I shall not extend my stay in hostel beyond my On-Campus time as mentioned in SOP.
- c. ***I have read and understood the rules and regulations regarding NUST /MCS anti-ragging policy and I undertake not to indulge, directly or indirectly, in any ragging activity inside the hostel premises. I shall report any ragging incident immediately to Hostel Manager / Company Commander. I may be expelled from hostel if found involved in any ragging incident.***
- d. I shall not allow any day scholar or outsider in my room.
- e. I shall not leave the hostel without prior permission of Hostel Manager / Company Commander and return to hostel before the prescribed time.
- f. ***If any breakage, damage is observed in my room inventory / hostel property or any item is misplaced, I shall be responsible to pay the total cost of broken / damaged or misplaced item in addition to fine as per SOP.***
- g. I shall not participate / attend un-official competitions, functions and trips without formal permission from parents, department and Cadets Wing. In case of violation; I shall be liable for suspension from the hostel or any other penalty / fine as decided by Cadets Wing.
- h. I shall not use electrical appliances, such as, electric kettle, heater, iron, emersion rod and if I am found using any of these items, I agree to be fined as per SOP
- i. ***I shall not indulge in any immoral activity prohibited by NUST and MCS rules and will ensure that I am not in possession of any banned item given in para '32 c' of "MCS Hostels SOP".***
- j. I shall meet / go with only the authorized visitors permitted by my parents in para 4 of this form.
- k. ***In case of violation of any of the rules / policies / orders / instructions, necessary disciplinary action may be taken against me including expulsion / suspension from the hostel and / or even rustication from the College.***
- l. I have read the "**MCS Hostel SOP**" and I shall abide by all the rules and regulations mentioned in the SOP. Moreover, I shall also adhere to all the laid down procedures and instructions passed on to me from Cadets Wing from time to time.

Dated: _____

Signature of Candidate

DECLARATION BY THE PARENTS / GUARDIAN

I _____ F/O/M/O/G/O _____ CNIC
No _____ Mobile No _____ do undertake that I
have studied the "MCS Hostel SOP" and ***I hereby fully endorse the above undertaking /
declaration (para a to l) given by my son / daughter*** _____. I take
full responsibility that my son / daughter will ensure the above stated undertaking in true letter
and spirit. I also undertake to pay / clear all his / her hostel dues / subscriptions for the entire
period of stay at the hostel in time.

Dated: _____ Signature of Parents / Guardian

BOYS HOSTEL**PRIVATE DRESS AND BEDDING ITEMS (Optional)**

S/No	Item	Qty
1.	Lounge Suit	01
2.	Combination Suit	01
3.	Neck Tie	03
4.	White Shalwar Kameez	02
5.	Waist Coat (Black)	01
6.	White Shirts (full sleeves)	02
7.	White Shirts (half sleeves)	02
8.	Black Socks	02 Pairs
9.	Shoe Black (Oxford Pattern)	01 Pair
10.	Sleepers (Leather)	01 Pair
11.	White shorts with hip pockets of Normal Pattern (2" higher than knees)	03
12.	PT Shoes/Joggers- White	01 Pair
13.	Under Wear	04
14.	Mattress	01
15.	White bed sheets	03
16.	Pillow with pillow cover	01
17.	Trunk/suitcase	01
18.	Blanket/quilt	01
19.	Emergency Light	01
20.	Ja-i-Namaz	01

PRE COURSE SYLLABUS

Mathematics (For Electrical Engineering and Software Engineering)

1. **Differentiation**. Theorems, composite and implicit functions, trigonometric exponential and logarithmic function, inverse trigonometric functions and successive differentiation, maxima and minima and points of inflexion, maxima and minima of function of two variables, Taylor and Maclaurin series.
2. **Integration**. Standard formulae, algebraic and trigonometric substitution, partial fraction method, integration by parts, definite integrals.
3. **Partial Differentiation**. Partial differentiation of implicit function.
4. **Complex Numbers**. Introduction to complex number. Argand's diagram, modulus, argument of complex number, forms of complex number, algebra of complex number, DeMoivre Theorem.
5. **Matrices**. Addition, Multiplication, inverse, determinants

Basic Electrical Engineering (Electrical Engineering and Software Engineering)

1. **Electrostatics.** Coulomb's law and Electric field intensity, Electric flux density, Gauss's theorem, energy and potential, conductors, inductance and capacitance, charge and discharge of capacitor through resistance.
2. **Electromagnetism.** Ampere's and magnetic field strength, force on a current carrying conductor in a magnetic field, Torque on current carrying in magnetic field.
 - a. **Electromagnetic Induction.** Faraday's and Lenz's law, self and mutual inductance, Eddy current, growth and decay of current in an LR and RC oscillatory circuit.
 - b. **Fundamentals of Alternating Currents.** Simple AC Generator, average and RMS values, AC circuits containing resistance, inductance and capacitance individually and in combination, phase and power in AC circuits.
 - c. **Resonance.** Series and parallel circuits, Selectivity and bandwidth of resonance circuits, voltage and current magnification.
 - d. **Coupled Circuits and Transformers.** Conductively and magnetically coupled circuits, transformer operation, losses, equivalent circuits and impedance matching.
 - e. **Kirchoff's Laws.** Loop and node equations, use of matrices Grammer's rule, Concept and use of duality network theorems.
3. **Electronics (For Electrical Engineering)**
 - a. **Diode.** Conduction mechanism in semiconductors, distribution and flow of charge carriers in semiconductors. Construction and characteristics of solid-state diodes. Analysis of forward and reverse biased PN junctions, junction capacitance. Voltage controlled resistor piece-wise, linear model for a diode, low frequency applications of diodes (diode circuits).
 - b. **Transistors.** Construction and characteristics of bipolar junction transistors, FET, MOSFET, junction transistor static volt-ampere characteristic model and H-parameters. Load line analysis and biasing of transistor amplifiers. Introductions to SCR.
 - c. **Basic Amplifier Circuits.** Fundamentals of transistor and the amplifiers, Basic Voltage Amplifiers Circuits, Transformer and direct coupled amplifiers.
 - d. **Modulation and Demodulation Circuits.** Amplitude, frequency Mod, PWM, PPM, adopter mod etc.

4. **Applied Physics (For Electrical Engineering and Software Engineering)**

- a. **System of Units.** System of absolute units C.GS absolute electrostatic and magneto-state units, practical units relating between electrical and mechanical units of M.K.S systems, absolute and nationalized system dimensions of electrical quantities.
- b. **Magnetic Properties of Materials.** Material BH curve, hysteresis magnetic circuit calculations, solenoids, pull of an electromagnet.
- c. **Atomic Structure and Basics of Quantum Mechanics.** Modern theory of atomic structure and its development in stage with simultaneous discussion of concept of quantum mechanics.
- d. **Electron Particles.** Motion of charged particles like electron in electronic and magnetic fields, electro-optics.
- e. **Electron Emissions.** Potential barrier, thermionic emission, emitting materials. Schottky's affect, field emission, secondary emission, photo-electric emission, photo multiplier tubes.
- f. **Conduction Through Gases.** Gaseous discharges, plasma and its properties, junction potential, Hot and cold cathode tubes, gas tubes and their characteristics.Theory of Electrons in solids.

5. **Computer Science (For Software Engineering)**

- a. **Logic Design.** Binary number system, conversion of Binary numbers to Octal, Hexadecimal and Decimal numbers, Complements, Boolean Algebra, Logic gates combinational and sequential logic circuits.
- b. **Programming Languages.** Working knowledge of any of the High level language such as FORTRAN, C+ or Basic is desired.
- c. **Software Packages.** Basics of word processing, spread sheet, D Base etc.
- d. **Operating System.** Basic knowledge of Windows.
- e. **Computer Hard Ware.** Computer terminology, classes, sub system introduction to PC family, Brief survey of 8, 16 and 32 bit microprocessors and their architecture.