2
tcolorbox   colback=lightgray, colframe=primaryblue, boxrule=2pt, arc=3pt, left=10pt, right=10pt, top=8pt, bottom=8pt
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ISRO Mock Interview Questions

Electronics & Communication Engineering

September 2025

This compilation contains interview questions experienced by ECE students during ISRO mock interviews. Each section represents one student's experience and includes technical questions across various domains including analog electronics, digital systems, communication, control systems, and microprocessors.

1. What was your internship topic?

2. What is the difference between a Microprocessor (MP) and a Microcontroller (MC)?

3. How do you connect memory with a computer; interfaces etc.

4. What is the name of a recently used microcontroller?

5. Explain buses: serial vs. parallel.

Areas of Interest

Analog Electronics:

1. Amplifier configurations: CE, CB, CC.

2. BJT based CE vs. Op-amp vs. Instrumentation amplifier.

Digital Electronics:

1. Draw Flip-Flops (FFs) on the board.

2. Counters, Master-Slave, etc.

Control Systems:

1. Order, Type.

2. Stability.

3. Response to a step input.

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6. How would you respond to a task assigned to you that is different from your strong domain?

1. About your internship? (Questions from Internship).

2. Tell me about different topologies of BJT and MOSFET.

3. What are the uses of different topologies?

4. Case-study type question: design an algorithm and control loop block diagram for controlling AC and tubelights at a given time.

5. Why do we prefer MOSFET over BJT? Give some advantages.

6. How is AI implemented in Embedded Systems?

7. What are Buck and Boost Converters? How are they different? Draw the circuit diagram.

8. How do you ensure reliability in your satellite? Why is a redundant system different from a non-redundant system?

1. Asked about your interest.

2. Questions on internship topic.

3. What is the use of the common base configuration?

4. Why do we use LVDS?

5. How do Hardware and Software interact?

6. Name a protocol for user interaction.

7. How do you design a system to give variable voltage controlled by digital input?

   The interview was detailed and most questions were from my project and internship.

1. Explain direct-RF sampling based SAR and its advantage as compared to traditional radio.

2. Explain the system/block level architecture of a digital communication system.

3. What are IQ Signals and how are they useful/helpful?

4. How do you take care of RF traces in your transceiver board design?

5. Digital Interfaces like UART, SPI.

6. What is polarization?

> **Feedback & Suggestions**
>
> - Speak slowly and consume more time while answering.
> - Don't be nervous.

1. (Internship Based) Explain how two people communicate through digital communication.

2. Link budget analysis.

3. What is the main effect of high frequency on CMOS circuits? (Ans: Gate capacitance).

4. Serial vs. Parallel Interfacing.

5. How to connect an ADC with a Processor?

> **Feedback & Suggestions**
>
> - Speak slowly.
> - Don't be too nervous during the interview.
> - For any question, first give a short answer and then start explaining.
> - Always prefer short answers and a slow pace of giving answers.
> - Have confidence in your answers while presenting. Use hand gestures.
> - Know basic terminology related to Digital Comms, DSP, and Signals & Systems.

Subject of Interests

Control systems, Robotics, Drones, Navigation.

Questions Asked

1. What is a Kalman filter?

2. For a PID controller, how will the plant react if only P, only I, only D, only PI, only PD, and PID controller is implemented?

3. Asked about projects and what I did.

Feedback & Suggestions

- Talk in a structured way.

- Have in-depth knowledge of subjects.

- Diversify the CV to 2-3 topics.

Questions on Advanced Sensors & Analog Instrumentation

1. Instrumentation Amplifier, Sigma-Delta ADC (in detail).

2. FPGA and its types explanation.

3. Data interface protocols (SPI, UART).

4. Types of ADC.

5. Op-amps, BJT & MOSFET configurations with deep knowledge.

6. Types of errors in detail.

7. LabVIEW or other programming languages.

8. Types of sensors.

1. What are the types of ADC?

2. What is a Flash ADC?

3. What is the formula for ADC resolution?

4. What microprocessors have you worked with?

5. What are the interrupts in 8085, 8086?

6. What are the programming languages you know?

7. What is the difference between C/C++?

8. What is a Bode plot? Why is it used?

9. What is a transfer function?

10. Tell me about your project.

11. How do you represent negative numbers in digital systems?

12. Why is a JK Flip-Flop used?

13. What is the difference between combinational and sequential circuits?

14. Draw the common emitter configuration with and without bias.

15. Draw a common emitter amplifier on the board.

16. MOSFET characteristics.

1. What are some ethernet cables you know?

2. What is SOP and POS?

3. Which gates are used to build SOP and what gate is used for POS?

4. Draw a common emitter circuit.

5. What is biasing? What is cut-in voltage?

6. What are the components of a microprocessor?

7. What is PWM? What is the difference between voltage regulation and PWM?

8. How does PWM work?

9. What is the Fourier Transform?

10. Which band is used for satellite communication? What is its range?

11. What are the parameters of an op-amp and a transistor?

12. What programming languages do you know?

13. What is an object and a class in OOPs?

14. What is a feedback loop? What is the difference between a feedback and a closed loop?

1. What are the types of ADC?

2. What are interrupts in 8085?

3. Difference between Microprocessor and Microcontroller.

4. What is Link Budget?

5. To design a control system, what type of system would you prefer?

6. To design an amplifier, what would you choose: BJT, MOSFET or FET, and what configuration?

7. How would you define the stability of a system?

8. What is a J-K Flip-Flop, Master-Slave Flip-Flop?

9. State the Maxwell Equations.

10. What is a DAC?

1. What is the race-around condition?

2. Is MATLAB a tool or a platform?

3. What is an Operating System (OS)?

4. What is a function? What is an object? What is a class?

5. Microprocessor Architecture.

6. DMA vs. Interrupts in 8085.

7. How do you use Root-locus and Bode plot for open-loop poles analysis?

8. Microcontroller.

9. BJT configuration as a switch.

10. What is a pull-up resistor?

11. RC circuit analysis related question.

12. Characteristics of an Op-Amp.

13. What is biasing?

14. Why is 2's complement used for representing negative numbers instead of 1's complement?

15. What is FFT?

16. Unit of CMRR and its formula.

Analog Electronics (Op-amp)

1. Why is it called an operational amplifier?

2. What are its characteristics? (Input impedance, output impedance, bias current, slew rate, gain, CMRR etc.)

3. Draw a differential amplifier.

4. Draw an integrator and differentiator circuit.

5. Transistor characteristics (load line, Q-point, slope).

Digital Electronics

1. Definition of combinational and sequential circuits.

2. Race-around condition.

3. Master-slave flip-flop.

4. 1's complement and 2's complement.

Internship

Questions based on the internship took up the rest of the time.

1. What does Bipolar in BJT mean and why?

2. BJT and MOSFET working mechanism.

3. How is RFIC design different from normal circuits and what problems arise here?

4. Design HPF and LPF in both active and passive forms.

5. Differential amplifier.

6. Configurations of BJT and MOSFET as amplifiers and as switches.

7. Output of an RC circuit.

8. Microprocessor.

9. Programming languages can be asked.

10. Sequential and combinational circuits.

11. Asynchronous and synchronous circuits.

1. What is VSWR, and what is its physical significance?

2. What is beam steering and how is it achieved?

3. What is the maximum value of VSWR and when does it occur?

4. Maxwell's Equations.

5. What is displacement current - is it imaginary?

6. TE, TM modes and where are they used?

7. What modes are allowed in waveguides?

8. What is SAR, and what are the latest SAR developments?

9. How do we increase resolution in SAR?

10. What is duty cycle, its values and maximum value?

11. Sources of errors while measuring velocity, direction & range.

12. How to increase radar range?

13. What is the aperture of a radar? How to increase it?

14. How to increase resolution in a radar?

15. Methods of analog modulation (amplitude, phase & frequency).

16. Methods of digital modulation (PAM, etc.).

17. Devices like BJT: why is it called bipolar? What is unipolar?

18. What is SSPA (Solid State Power Amplifier)?

19. Microcontrollers basics - Block diagrams.

1. What is a BJT? Draw the input and output characteristics of a BJT.

2. What are active and passive devices? Is a diode an active device?

3. What are temperature sensors?

4. State the Radar Range Equation.

5. What is the difference between C and C++?

6. Write Maxwell's equations.

7. What are ADC, DAC? Draw the diagram.

8. What is DMA?

9. Difference between microprocessor and microcontroller.

10. Binary subtraction.

11. SAR.

12. Synchronous and Asynchronous communication.

13. Threshold voltage of Si and Ge.

14. What is parity? Why is parity used?

15. What is the value of the input impedance of an op-amp?

1. Forward characteristics of a diode.

2. Op-amp.

3. Architecture of Microprocessor 8085.

4. QPSK: why and what?

5. Log amplifier.

6. Differential Amplifier.

7. Fourier Series and Transform.

8. Clamper.

9. Ethernet.

1. What are different filters?

2. What is the frequency response of a band-pass filter? What is the -3dB point?

3. What is the difference between a microprocessor and a microcontroller?

4. What are the registers in 8085? What are the interrupts in 8085?

5. What is segmentation in 8086?

6. What are the efficiencies for class A, class B, and class C power amplifiers?

7. Subtract using 2's complement: 15-10.

8. Draw the output characteristics of a common emitter configuration. Draw the load line. What is the slope?

9. What is a switch-mode power supply?

10. What is a heat sink?

> **Feedback & Suggestions**
>
> Revise EVERYTHING; Brush up the basics. If you are unable to articulate your answer well enough within a few seconds, you will be interrupted. No questions were asked from my internship.

1. What are half-duplex, duplex, and simplex communications?

2. Types of analog modulation? Types of Pulse Coded Modulation? Sampling? Nyquist sampling?

3. Why is FM advantageous over AM?

4. How will you bias a BJT to achieve switching operation? (Draw on board and explain how it will be done practically).

5. I/O characteristics curve of a BJT.

6. How will you sense temperature? (Thermistors, thermocouples, etc.)

7. Draw the chain of signal conditioning from sensor to digital processor.

8. Full form of ADC and types of ADC. Types of DAC.

9. Definitions of accuracy and precision.

10. 8085 Microprocessor:

    (a) Types of addressing (direct, indirect, immediate).
    (b) Types of buses (data bus, address bus, control bus).

11. What does 32 in '32-bit' processor represent? (Width of data bus).

12. How will you make a T flip-flop from a JK flip-flop? (Short J and K inputs).

1. Difference between C and C++. What are objects and classes?

2. Polymorphism, abstraction, inheritance in C++.

3. FPGA.

4. HDL programming languages: Verilog, VHDL.

5. 8085, 8086: 8 and 16-bits. What does 8 and 16 bits mean?

6. Segments in 8086.

7. Stack and queue.

8. Difference between assembly and machine language. High-level language to assembly conversion.

9. How to control an LED/transistor using a microcontroller? (GPIO ports).

10. TTL, RTL, CMOS logic families.

1. What are different types of power amplifiers? Which one of them has the highest efficiency? What is the value?

2. Draw a simple closed-loop system. What is its transfer function?

3. What is SPI interface?

4. What is the difference between synchronous and asynchronous interfacing?

5. What is a Hall Sensor? What is the Hall Effect?

6. What is a Schmitt Trigger?

7. What are the different Topologies of Power Converters?

8. What is an Operating System?

9. What is the difference between Verilog & VHDL?

10. What are the parameters of an Op-amp?

11. What is the difference between TTL and CMOS logic families?

12. What is the difference between a class and an object in C++?

1. What are α and β in a BJT?

2. What does Bipolar mean in BJT?

3. Output characteristics of a BJT.

4. How can we use a BJT as a switch?

5. Difference between MOSFET and FET?

6. What is doping?

7. How is conduction dependent on temperature?

8. What is convolution?

9. What is the difference between Fourier Series and Fourier Transform?

10. What is DSP?

11. What is stability, and how do we determine it?

1. Error detection codes (mainly Hamming).

2. Difference between VHDL & Verilog.

3. Transmitter Block diagram, Receiver Block diagram.

4. Concurrency & Sequential processing definition.

5. Different Logic family definitions.

6. CMOS diagram and its operation.

7. Stability of a system (how to determine it?).

8. Interrupt definition.

9. Block diagram of signal conditioning, from sensor to ADC.

10. Maxwell's Equations.

11. Difference between SSI, MSI, LSI, VLSI.

12. Difference between SR & JK Flip-Flop.

13. Difference between precision and accuracy.

14. In CMOS, what will the PMOS & NMOS act as (short or load)?

15. What type of filters are used in modulation schemes?

1. What is the modulation index? (AM)

2. What is the modulation index? (FM)

3. Write Routh's equation.

4. Draw an inverting Amp op-amp circuit.

5. What are op-amp parameters?

6. What are ideal op-amp parameters?

7. Draw a Full Adder Circuit.

8. What are the different addressing mechanisms in a Microprocessor?

9. What are the parameters of a Transistor?

Computer Architecture & Organization (CAO)

1. What is non-volatile memory? What are its types?

2. What is SRAM, DRAM? Compare SRAM vs DRAM in terms of power.

3. Pipelining, Pipelining stages, hazards.

4. Types of memory addressing.

5. Was Pipelining used in 8085?

6. Static and Dynamic power.

7. Virtual memory.

8. Cache and its levels.

9. SRAM and DRAM uses, FPGA, ASIC, Interrupts. What happens when an interrupt occurs?

Digital Electronics

1. Combinational Circuits.

2. Synchronous vs. Asynchronous.

3. Fan-in, fan-out.

4. Clock-Skew and problems due to it.

5. Universal Gates and logic gates made by them.

Feedback & Suggestions

Speak Louder and go deeper in concepts. Practice answering mock questions and brush-up on the basics of other courses.

1. Where is PCM used?

2. Different modulation schemes: ASK, FSK, PSK, QPSK, QAM.

3. Different AM schemes: DSB-SC, SSB.

4. Difference between DSB-SC & SSB.

5. What is BER?

6. Hamming code.

7. Error detection codes & Error correction codes.

8. Difference between matched filter and Auto-Correlation.

9. Make an R-C Coupled Amplifier (C-E configuration).

10. What do we send in Digital comms? (bits).

11. Types of channels in communication systems.

12. Can we send analog bits using two wires in digital comms?

Power Systems

1. Transistor Amplifiers (Power) - classes.

2. BJT, MOSFET Part numbers.

3. Power MOSFET, BJT.

4. Thermal Runaway mitigation & cause.

5. BJT, Op-amp datasheet parameters.

Control System

1. Transfer function.

2. Bode plot.

3. Stability of a system conditions.

4. Routh stability criteria.

5. Nyquist stability criteria.

Digital

1. Show 25 in octal or hexadecimal.

2. ASCII.

3. JK Flip-Flop.

Programming

1. C++: Class? OOP? Structure, function, properties.

1. Sequential vs. Combinational circuits.

2. Race around condition and Master-slave JK flip-flop.

3. Convert from binary to Octal and Hexa.

4. FPGA vs. ASIC.

5. Communication protocols: SPI, I2C, etc.

6. BJT's parameters.

7. MOSFET parameters.

8. Effects when MOSFET technology goes to lower nodes (e.g., DIBL).

9. T flip-flop from JK flip-flop.

10. Propagation delays, congestion delays.

11. Clock skew.

12. Sequential circuits from universal gates.

> **Feedback & Suggestions**
>
> Read basics of all subjects. Know every definition and acronym. You should not just know the code, but also the gate-level logic which your code is applying.

1. Explain the block diagram of satellite communication.

2. State Maxwell's Equations.

3. Basic parameters of a transmission line.

4. What are TE/TM modes?

5. What is a Traveling Wave Tube (TWT)?

6. What is a BJT? Draw the characteristics of a BJT. What is its load line?

7. Draw a common emitter configuration and write the formula for its voltage gain (V_o).

8. Draw a Half Adder.

9. What is a K-Map, where is it used?

10. Explain Norton's Theorem.

11. What are AM, FM & PM? Why is QPSK or Phase Shift Keying so much used?

12. Differentiate between Fourier Series & Fourier Transform.

13. Stability of a system (Gain margin & Phase margin has to be explained). How will you know stability using a Bode plot? How will you use it in the case of a second-order system?

14. What is memory leakage in C language? What is malloc?

15. What do you mean by Object-Oriented Programming?

16. Difference between Machine & Assembly Language.

17. What is a program counter? What is an Interrupt? What is an ISR?

1. Define convolution.

2. Define transfer function.

3. What is SRAM & DRAM?

4. Difference between FIR and IIR filters.

5. Define parity.

6. Define Hamming Code.

7. Define PID controller.

8. What is BER?

9. What is E_b/N_0 ratio?

10. What is the relation between BER and E_b/N_0 in QPSK?

11. Basic characteristics of an OPAMP.

1. DTFT, DFT, Convolution basics.

2. Instrumentation Amplifiers. Can it be made with 2 op-amps?

3. Radar: What is PRF? Where will the radar be placed to get signal properly? What is a Blind spot?

4. FMCW radar (what bandwidth is used?). Sawtooth, Triangular.

5. LVDT sensors.

6. Thermistor: NTC, PTC. What are they made of?

7. Why is an Instrumentation Amplifier used instead of a non-inverting amplifier?

8. How can a radar be used without moving? (Beam steering).

9. FFT.

10. GMR sensors have a weak signal output. How can they be used for experiments?

> **Feedback & Suggestions**
>
> Brush up on basics. Your way of answering is more mathematical/formula-based. Need to focus on conceptual, word-level explanation.

1. Terrestrial Communication.

2. Explain about impedance matching. Why do we need it?

3. What is characteristic impedance?

4. VSWR - formula and explanation.

5. Differentiate Monopole antenna and Patch antenna (Gain, Radiation pattern).

6. Maxwell's equations and the physical intuition behind them.

7. Explain different kinds of fading.

8. UHF frequency range, Microwave range.

9. What are S-parameters? Explain their significance.

> **Feedback & Suggestions**
>
> In the actual interview, the panel will go deeper into your projects, internship, and domain knowledge in areas like Digital families, Microprocessors, Control systems, Analog circuits, and Power amplifiers.

1. What is MATLAB? What is the difference between an OS and a Platform?

2. What is AWGN? What is an Envelope Detector?

3. What is a Superheterodyne receiver?

4. What is Signal Space?

5. What is an open loop and closed loop system? State advantages and disadvantages.

6. What are the losses considered between antenna to antenna?

7. What is a PLL and where is it used?

8. What is sensitivity and selectivity?

9. What are the blocks used in processing the signal that we get after demodulation?

10. What is the radar range equation?

11. What is a Matched Filter?

12. What is ISI? Is it channel dependent? How do you design a system to avoid ISI and how is ISI mitigated?

13. What are logic families? Difference between processor, controllers and FPGA.

14. What is an Op-Amp and its basic circuit?

15. Combinational and Sequential Logic.

16. In a Bode Plot, is the open or closed loop Transfer Function used? What about in the case of Nyquist & Root Locus Plot?

1. What is TTL?

2. What is DTL?

3. Why is an op-amp called an operational amplifier?

4. Which configuration of BJT is used for voltage amplification?

5. What is a Bode plot?

6. What is phase margin & gain margin?

7. What are the configurations of a BJT amplifier & the use of each?

8. What is a combinational circuit?

9. What is a sequential circuit?

10. Why is an op-amp used as an amplifier when we already have BJT?

1. What are the topologies of a transistor?

2. What is the current gain in common base?

3. Which configuration is a voltage amplifier?

4. What is VSWR? What are its max and min values?

5. What is the use of the common collector configuration?

6. What is skin depth?

7. How is beam steering done?

8. Types of feeds for an antenna.

9. Difference between a transmission line and a waveguide.

10. TE, TM, TEM modes.

11. When will VSWR be ∞?

12. When will VSWR tend to zero? (Note: min is 1).

13. What is impedance matching?

14. Instrumentation amplifier.

15. What is an ADC? Explain its working, resolution.

1. What is PAM?

2. Simplex, half-duplex, full-duplex, and the difference between them?

3. Difference between AM & FM?

4. What are the schemes of Digital Modulation (ASK, FSK, PSK, QAM)?

5. Maxwell's equations.

6. Characteristic Impedance of a Transmission Line.

7. MMIC vs RFIC?

8. Smith chart.

9. Why not use CMOS for MMIC?

10. PAM, PWM, PCM?

11. Give basics of Modulation.

12. What is a BJT? What are the different configurations and their uses?

13. What is interleaving?

14. Control System: Gain & Phase Margin.

15. What is ISI?

16. ADC Resolution, ADC error.

17. Op-Amp basics.

> **Feedback & Suggestions**
>
> Good knowledge of EMT & Comm. Focus more on using the appropriate keywords to explain things. Give appropriate answers, not too long. Brush up on basics of all courses.

1. What are the components in microprocessors?

2. What is an instruction cycle?

3. What is pipelining?

4. What is a BJT? Is it a current-controlled voltage device or a current-controlled current device?

5. What is gain in a BJT?

6. What are multivibrators? What are the types of multivibrators?

7. What is a PLL?

8. What is an image signal?

9. What is a modulation index?

10. What is a superheterodyne receiver?

11. What are the losses in satellite communication?

12. What is open-loop gain, closed-loop gain, and the stability criteria?

13. What is the Miller effect?

14. What is the Poynting theorem?

Digital Electronics

1. Define FPGA, ASIC, Pipelining.

2. Differentiate: Combinational & sequential, SRAM & DRAM, Synchronous & asynchronous.

Instrumentation

1. Explain different ADCs.

2. Explain Op-amps.

Control System

1. Define gain margin, phase margin.

2. Gain crossover, Bode Plot.

EM Waves

1. Define VSWR.

2. Differentiate transmission lines, coaxial cables, and waveguides.

Internship

Nothing was asked from the internship.

General Questions

1. How does a mic work?

2. What are Piezoelectric materials?

Feedback & Suggestions

- Give good and clear explanations.

- Revise all subjects, even those outside your CV.

- Give precise definitions.

- Have more clarity in concepts.

- Do not provide extra information. Only answer what is asked.

- Study by connecting topics.

- Speak slowly and increase your confidence.

1. What is TTL? What are the types of TTL?

2. What are universal gates? Why are they called that?

3. What are ADC & DAC? What are their types?

4. What is the resolution of an ADC?

5. State De Morgan's Law.

6. What are the Associative, Distributive & Commutative properties?

7. What is the difference between Verilog & SystemVerilog?

8. What is an FPGA? What gates are there in an FPGA?

9. What is a State Machine?

10. What is pipelining?

11. What is virtual memory?

12. What is CMOS?

13. What is a Bode Plot? How do you find if a system is stable from it?

14. What is convolution?

15. What is an impulse response?

16. What is correlation?

17. What is DTFT? DFT?

1. Internship Project Related questions.

2. What are other sensors like passive sensors?

3. Tell me about 1 sensor. Explain a Potentiometer.

4. What is and why do we need impedance matching for sensors?

5. What is an interrupt? Interrupts in 8085?

6. What happens when the current program is halted in a microprocessor? Is the data lost? Where is that data address stored?

7. How to get position from an accelerometer?

8. Difference in precision & accuracy?

9. What is DMA?

10. What is an FSM? Mealy & Moore?

11. Explain the data processing chain with a sensor as the first block.

12. Different types of ADC? Explain Flash Type. How many comparators are needed for 16-bit resolution?

13. Do you know SAR ADC? Explain. How many clock cycles are required to get the output?

14. What is a program counter?

15. Accelerometer, gyro, IMU – what are they?

Common Question Themes

> **Frequently Asked Topics**
>
> Based on the compilation of student experiences, the following topics appear most frequently in ISRO mock interviews:
>
> ### Core Electronics Fundamentals
>
> - **BJT & MOSFET:** Configurations (CE, CB, CC), characteristics, biasing, switching applications
> - **Op-Amps:** Parameters, configurations, applications, instrumentation amplifiers
> - **ADC/DAC:** Types, resolution, working principles, interfacing
> - **Digital Logic:** Flip-flops, counters, combinational vs sequential circuits
>
> ### Communication Systems
>
> - **Modulation:** AM, FM, PSK, QPSK, digital modulation schemes
> - **RF/Microwave:** VSWR, impedance matching, S-parameters, transmission lines
> - **Radar Systems:** SAR, range equation, beam steering
> - **Maxwell's Equations:** Physical significance and applications
>
> ### Digital Systems & Microprocessors
>
> - **8085/8086:** Architecture, interrupts, addressing modes, interfacing
> - **Programming:** C/C++, object-oriented concepts, data structures
> - **Digital Interfaces:** UART, SPI, I2C protocols
> - **Memory Systems:** SRAM, DRAM, cache, virtual memory
>
> ### Control Systems
>
> - **Stability Analysis:** Bode plots, Nyquist criteria, gain/phase margins
> - **Controllers:** PID, transfer functions, system response
> - **Signal Processing:** Convolution, Fourier transforms, filters

Key Preparation Recommendations

> **Interview Preparation Strategy**
>
> ### Content Preparation
>
> 1. **Master the Fundamentals:** Focus on core concepts rather than advanced topics
>
> 2. **Practice Circuit Drawing:** Be ready to draw circuits on the board quickly and accurately
>
> 3. **Know Formulas:** Memorize key equations and be able to derive them
>
> 4. **Internship Preparation:** Be thoroughly prepared to explain your internship project in detail
>
> 5. **Cross-Domain Knowledge:** Don't limit yourself to your specialization area
>
> ### Interview Techniques
>
> 1. **Speak Slowly:** Take time to think and articulate your answers clearly
>
> 2. **Structure Your Answers:** Give brief overview first, then elaborate
>
> 3. **Use Hand Gestures:** Enhance explanations with appropriate gestures
>
> 4. **Stay Confident:** Project confidence even when uncertain
>
> 5. **Practice Definitions:** Know precise technical definitions
>
> ### Common Pitfalls to Avoid
>
> - Don't give overly mathematical explanations without conceptual understanding
> - Avoid providing extra information not asked for
> - Don't rush through answers due to nervousness
> - Don't neglect basic concepts while focusing on advanced topics

> **Best of Luck to All Future ISRO Candidates!**
>
> *"Success in technical interviews comes from a solid foundation in fundamentals,*
> *clear communication, and confident presentation of knowledge."*