

आर.डी.एस.ओ. के जे.ई. एवं एस.एस.ई. (सिग्नल)
के प्रारम्भिक प्रशिक्षण हेतु
संस्तुत पाठ्यक्रम

**Recommended Syllabus for
Initial training of JEs & SSEs (Signal) of RDSO**

कैमटेक/एस/प्रोज/2017-18/एसपी3/1.0

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आर.डी.एस.ओ. के जे.ई. एवं एस.एस.ई. (सिग्नल) के प्रारम्भिक प्रशिक्षण हेतु संस्तुत पाठ्यक्रम इस पाठ्यक्रम में दो प्रकार की अनुसूचियों का उल्लेख किया गया है। 'अनुलग्नक I' में आर.डी.एस.ओ. के सिग्नल एवं दूरसंचार निदेशालयों के जे.ई. एवं एस.एस.ई. (सिग्नल) के सम्पूर्ण प्रारम्भिक प्रशिक्षण का रेलवे बोर्ड के दिशा निर्देशोंनुसार क्रम एवं अनुसूची को दर्शाया गया है जिसमें फील्ड प्रशिक्षण तथा आर.डी.एस.ओ. में सीधे भर्ती किए हुए जे.ई. एवं एस.एस.ई. (सिग्नल) के प्रशिक्षण हेतु संस्तुतियों को सम्मिलित किया गया है। यह जे.ई./एस.एस.ई. (सिग्नल) एवं जे.ई./एस.एस.ई.(टेलिकॉम) दौनों के लिए लागू होती है। 'अनुलग्नक II' में 01.01.2017 से प्रभावी इरिसेट सिकंदरबाद में जे.ई. एवं एस.एस.ई. (सिग्नल) के प्रारम्भिक प्रशिक्षण के भाग I तथा II हेतु संशोधित प्रशिक्षण मॉड्यूल को सम्मिलित किया गया है।

Recommended Syllabus for initial training of JEs & SSEs (Signal) of RDSO

Two types of schedules are mentioned in this syllabus. 'Annexure I' covers Sequence & Schedule for complete initial training of JE and SSE of Signal & Telecom Directorates of RDSO as per guidelines of Railway Board which includes field training along with recommendations of CAMTECH for training of directly recruited JEs & SSEs of RDSO. This shall apply to both JE/SSE (Signal) and JE/SSE(Telecom). 'Annexure II' contains revised training module w.e.f. 01.01.2017 for Phase I & II of initial training of JE and SSE (Signal) at IRISSET Secunderabad.

अनुलग्नक I**Annexure I**

आर.डी.एस.ओ. के सिग्नल एवं दूरसंचार निदेशालयों के जे.ई. एवं एस.एस.ई. का प्रारम्भिक प्रशिक्षण

प्रशिक्षण पाठ्यक्रम का क्रम एवं अनुसूची

Initial training of JE and SSE of Signal & Telecom Directorates of RDSO

Sequence and schedule of the training programme

Sr. No.	Module	JE (Sig)	SSE (Sig)	JE(Tele)	SSE/(Tele)
1	Joining Formalities at headquarters	1	1	1	1
2	Phase I at IRISSET Secunderabad as per the revised training module being followed currently by IRISSET.	14	13	14	13
3	Field training on working of various equipments/gears/systems like: For JE/SSE(Signal)- Signals, Point machines, Track circuits, Axle Counters, Data logger, IPS, PI, RRI, EI etc. For JE/SSE (Telecom) – Public Address system, Electronic Exchange, Control office, Microwave, PRS, SDH, OFC etc. The above training also includes training on <i>RDSO working*</i> at RDSO.	6	6	6	6
4	Phase II at IRISSET	14	12	14	12
5	General Rules (GR) of Indian Railways and Subsidiary Rules (SR) of concerned Zonal Railway at Zonal Railway Training Institute (ZRTI)	3	3	3	3
6	Attachment on a working post like SSE/Signal or SSE/Tele in organizations like Open line Maintenance, Construction, Works, RDSO etc. without independent charge to understand the practical working in Railways.	12	12	12	12
7	Special course on Managerial/Executive skills to be conducted by RDSO/Zonal Railways	0	2	0	2
8	Presentation/Project Work as specified by RDSO/Zonal Railway	1	2	1	2
9	Posting Exam to be conducted at headquarters	1	1	1	1
	Total	52 weeks	52 weeks	52 weeks	52 weeks

*** कैमटेक की संस्तुतियाँ***** CAMTECH's recommendations**

Following contents are to be incorporated for training on RDSO working

1. Functions & Organizational structure of RDSO.
2. Responsibilities and functions of Officers & Senior subordinates of Signal & Telecom Directorates.
3. Preparation of RDSO Specifications & drawings
4. Customer care & Quality Control
5. Prototype testing of equipment of new vendor.
6. Scrutinizing manufacturing design, drawings and testing of equipments as per customer requirements.
7. Functions of QA (S&T), Signal & Telecom. Directorate
8. Inspection of Signalling and Telecom items.
9. Various types of tests
10. Vendor development.
11. Renewal of Type Approval.
12. Monitoring Performance of Approved Vendors
 - Upgradation.
 - Down gradation / Deletion.
 - Super Checks.
 - Surprise Inspection.
 - Technical Quality Audits.
13. Upkeep of Vendor Directory including monthly amendments.
14. Introduction to International Standards of quality management -EN-60950, EN-50155 & IS-9000 ISO 9001, Quality management systems- Requirements.



अनुलग्नक II
Annexure II

**आर.डी.एस.ओ. के जे.ई./एस.एस.ई.(सिग्नल) का इरिसेट में प्रारम्भिक कोर्सेस हेतु प्रशिक्षण मॉड्यूल
Training Module of Initial Courses for SSE/JE (Signal) of RDSO at IRISSET**

नियमित सिग्नलिंग कोर्सेस में कुल घंटों का वितरण (01.01.2017 से प्रभावी)

Total hours distribution among regular signalling courses (w.e.f. 01.01.2017)

Sr. No.	Sub. Code	Subject	Phase I		Phase II	
			JE Signal	SSE Signal	JE Signal	SSE Signal
1	BFG+REG	Briefing & Registration	2	2	2	2
2	S-1	Basics of Signalling Engineering	17	15	--	--
3	S-2	Principles of Interlocking	18	18	--	--
4	S-3	Mechanical Signaling – Single Wire & Rodding	14	14	--	--
5	S-4	Mechanical Signaling – Double Wire	6	6	--	--
6	S-5	Locking Table	12	12	--	--
7	S-6	Dog Chart	10	10	--	--
8	S-10	Colour Light & Automatic Signalling	16	15	--	--
9	S-11	Control Tables & Selection circuits	19	18	--	--
10	S-12	Interlocking with Metal-Carbon Relays	34	24	--	--
11	S-13	Circuit practices-Metal to Carbon Relays	26	21	--	--
12	S-19	Signalling Relays & Cables	10	10	--	--
13	S-20	Reversers & Slot Circuits	8	8	--	--
14	S-21	Electric Point Machines	14	10	--	--
15	S-22	Block Working-S.L. Token & D.L. Block Instruments	20	18	--	--
16	S-25	Train Detection – Track Circuits	22	20	--	--
17	S-7	Signalling in 25 KV AC Electrified area	--	--	10	10
18	S-8	Signalling General	--	--	19	19
19	S-9	Power Supply for Signalling	--	--	14	12
20	S-14	Interlocking with Metal-Metal Relays	--	--	16	16

Sr. No.	Sub. Code	Subject	Phase I		Phase II	
			JE Signal	SSE Signal	JE Signal	SSE Signal
21	S-15	Panel Interlocking with Metal-Carbon Relays	--	--	19	14
22	S-16	RRI Siemens	--	--	13	10
23	S-17	Circuit Practice Siemens	--	--	20	16
24	S-18	Electronic Interlocking	--	--	26	16
25	S-23	Tokenless Block Instrument for S.L.	--	--	18	16
26	S-24	Intermediate Block Signalling, BPAC	--	--	14	14
27	S-26	Train Detection s – Analog & Digital Axle Counters	--	--	12	14
28	S-27	Signalling safety & accident case study	--	--	6	6
29	S-28	Data loggers, AWS, TPWS, ETCS, ACD & TCAS	--	--	20	20
30	S-29	Signalling installation & quality	--	--	6	6
31	NEW	Personal safety at work place	2	2	2	2
32	NEW	Right to information & Information Technology Act	2	2	2	2
33	ODS-Lab	Outdoor Signalling Lab	44	46	16	14
34	E.S.Lab	Electrical Signaling Lab	30	32	26	26
35	BS Lab	Block Lab	12	12	24	24
36	T.D.Lab	Train Detection Lab	26	26	16	16
37	E.L.	E-Learning	2	2	2	0
38	ODT	ODT Lab	--	--	4	4
39	TL	Telephony Lab	--	--	2	2
40	CNL	Control Lab	--	--	4	4
41	OFC Lab	OFC Lab	--	--	2	2
42	TC1	Line Plant Practice & Telecommunication Cables	--	--	4	4
43	TCS1	Principles of Telephony	--	--	4	4
44	TC6	Train Traffic Control	--	--	4	4

Sr. No.	Sub. Code	Subject	Phase I		Phase II	
			JE Signal	SSE Signal	JE Signal	SSE Signal
45	TCT4	Optical Fibre Cables & Systems, IP based Video Surveillance System	--	--	4	4
46	TA1	Mobile Train Radio Communication	--	--	2	2
47	C-1	Information Technology & Hardware	--	--	2	2
48	C-3	Auto CAD	--	--	2	2
49	G-1	Vigilance	--	--	2	2
50	G-2	Rajbhasha	--	--	2	2
51	G-3	Tenders & Contracts & (Estimates for JE Design)	--	--	2	2
52	G-5	Establishment, Ethics , Workload & Post creation	--	--	8	6
53	G-6	Accounts	--	--	2	2
54	G-9	Disaster Management & Accident Communication	--	--	4	4
55	Library	Library/Holydays/Extra Classes/CD-spare	9	7	5	0
56	Extn Lect	Extn. Lectures – P Way/C&W/Stores/Fire Fighting/First Aid/Av/Stress Mgmt./Mgmt. & POSH	--	--	12	6
57	Local visit	Visit to Local Stations/Firms	--	--	2	2
58	Tour	Visit to out Stations	--	--	6	6
59	Project	Project Assignment/Presentation	2	2	8	4
60	TE	Theory Exam	25	20	12	8
61	PE	Practical Exam	16	16	16	6
62	OHD	Open House Discussion	2	2	2	1
		Total Hours	420	390	420	360
		Total Weeks	14	13	14	12

(Each session would last for an hour and in each week 30 sessions would be conducted)

