

RF & Microwave Engineering 101

Cohort-Based Course

80 hours in total (weekly meetings)

Starting on 29 April 2026

VISIT OUR LAB & SERVICES

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COURSE OVERVIEW

An industry-leading programme bridging theory and practice in RF & Microwave engineering.



RF & Microwave Engineering 101 is Interllgent's flagship course for over 20 years. This comprehensive 80-hour programme is delivered online via live video lectures and focuses on the Physical Layer (PHY) of RF and Microwave systems.

The training aims to bring electronics engineering graduates to the level of junior RF and Microwave engineers — combining theoretical studies with practical industry examples. Attendees receive certified electronic copies of original training materials including whitepapers, homework assignments, and presentation slides.

An optional online final exam is available for attendees who wish to add a grade to their certificate of completion.

WHICH TOPICS ARE COVERED?

✓ Noise Budget

✓ Impedance Matching

✓ Receiver Architectures

✓ Filters

✓ IF Digitizers

✓ Antennas

✓ Basic RF Components

✓ S-Parameters

✓ Non-Linearity

✓ Transmitter Architectures

✓ PLL Synthesizers

✓ Link Budget & Test

IDEAL FOR

✓ Engineers Who Are Newcomers To The RF And Microwave Industry

✓ DSP / Algo Engineers Expanding Into The PHY World Of Radio Systems

✓ Experienced Microwave Engineers Refreshing & Updating Their Knowledge

PRIOR KNOWLEDGE

The Participants Are Expected To Have Basic Familiarity With Fourier Transforms, Laplace Transforms, Random Processes, And Basic Circuit Theory. In Any Case, All Relevant Subjects In The Course Which Require Prior Knowledge Will Be Accompanied By Theoretical Background Materials That Include The Required Background.

SCHEDULE & TIMETABLE

A structured learning journey of 20 live Zoom sessions, delivering expert RF & Microwave training every Wednesday from 29 April 2026.



This comprehensive course comprises 80 study hours, delivered through 20 weekly live sessions on the Zoom platform, each running for 4 hours. Sessions are held every Wednesday, commencing 29 April 2026, from 14:00 to 18:00 (UK time).

TIMETABLE AND STUDY SUBJECTS

#	Date	Sub Index.	Study Subject
1	29 APR	1	Introduction to the exciting world of RF and Microwave engineering
2	6 MAY	2A	Thermal noise, SNR and Noise Figure (1)
3	13 MAY	2B	Thermal noise, SNR and Noise Figure (2)
4	20 MAY	3A	Non-Linear device characterization (1)
5	27 MAY	3B	Non-Linear device characterization (2) and dynamic range
6	3 JUN	4	RF and microwave Mixers and spur charts
7	10 JUN	5	Standard test equipment (1): Spectrum Analysis basics, RF signal generators
8	17 JUN	6A	Distributed systems and impedance matching techniques (1)
9	24 JUN	6B	Distributed systems and impedance matching techniques (2)
10	1 JUL	8	Passive RF devices and basic building blocks
11	8 JUL	9	Standard test equipment (2): Network Analysis basics, Power meters, cable and connector care
12	15 JUL	10A	Signal Sources, PLL Synthesizers, and phase noise
13	22 JUL	10B	Digital wireless communications and Vector Signal Analysis (1)
14	29 JUL	10B	Digital wireless communications and Vector Signal Analysis (2)
15	5 AUG	11A	RF and IF sampling by RF ADCs (1)
16	12 AUG	11B	RF and IF sampling by RF ADCs (2)
17	19 AUG	12	Transmitter and Receiver system architectures
18	26 AUG	13	Antenna concepts and the wireless channel
19	2 SEP	14	Moving up to millimetre waves
20	9 SEP	15	Concluding exercise: Receiver system design

The founder of INTERLLIGENT RF & Microwave Solutions

Presented by

Mr. Oren Hagai

25+ years in RF systems

Bio available online <https://www.linkedin.com/in/4x1vi>

Register now

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