Small Literature Project – High Speed Devices 2018

For the literature project – you will pick a certain device type for the list, and make a short presentation (*5-10* minutes, ppt) on the lecture on the 1/3.

You need to cover two topics:

- Why are the researchers/companies working on this device.
- Highlight the important device metrics (g_m, f_T, f_{max}, R_{on}, SS, NF_{min}, *MSG*…) which are relevant for your device.

And if you can find out:

- What might not be so good with that type of device?

Work in groups of two.

Device Type	Names
InGaAs/InP HEMT	
InGaAs/InP DHBT	
Si MOSFET FDSOI	
Si MOSFET FinFET	
AlGaN/GaN HEMT	
InGaAs MOSFET (quantum well)	
GaN FET	
MoS_2 FET	
SiGe HBT	
InAs Nanowire MOSFET	
Graphene FET	
Carbon Nanotube FET	
InGaAs MOSFET (trigate)	

Or pick your own favorite topic!

Device Type	Names