The .slx (System Generator projet) is built using matlab 2016

And .xpr (Vivado projects) are built using Vivado2016.3

Guidelines for running the program

1. Run the ROM\_Data\_gen\_music\_repo.m. It will generate the RAM data for .slx program
2. Open MUSIC\_repo\_DA\_I.slx / MUSIC\_repo\_DA\_II.slx
3. Run the program
4. Plot the Final\_Angle\_DA\_I / Final\_Angle\_DA\_II.
5. Hold on the figure.
6. Plot the Angle \_in
7. Angle\_in and Final\_Angle\_DA\_I / Final\_Angle\_DA\_II should follow each other.
8. The step Angle can be varied from the Simulink HDL counter in MUSIC\_repo \_final. It is noteworthy that initial and final value of the angle should not exceed the intersect point of the antenna patterns. However the angle can be changed in upward downward direction.
9. The Amplitude of the intercepted data (sig\_st) can be changed using matlab function in the range of 1000 to 13000 digital level.
10. Variation in data sample is adjusted by up\_var and down\_var variables.
11. The SNR of the incident samples is measured by following matlab code

dum=dummy\_right-dummy\_left;

SN=snr(dummy\_data,dum);

Results :

1. The resources utilized by the algorithm can be evaluated from MUSIC\_repo\_DA\_I.tcl and MUSIC\_repo\_DA\_II.tcl for DA-I and DA-II respectively.
2. The linearity of output angle vs the input angle can be seen from .slx output as mentioned in point 4 – 6.