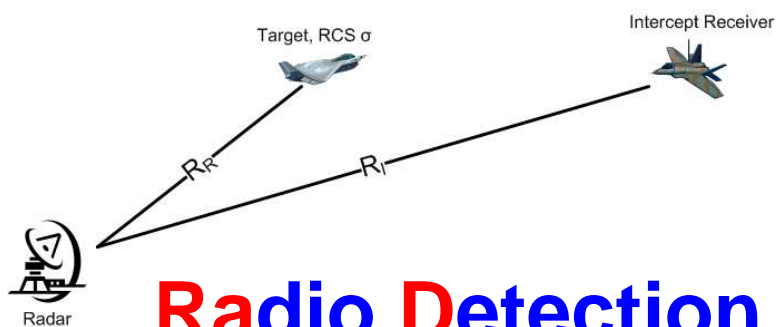


Briefing for Third Year Students on

Radar Programme

Coordinator: Ng Boon Poh
20 March 2014 (Thursday)

What is a Radar ?



Radio Detection and Ranging

APPLICATIONS

3

Military



4

Military



5

Radars in Electronic Warfare



[A Radar Video Clip](#)

6

Air traffic control – used in the airports



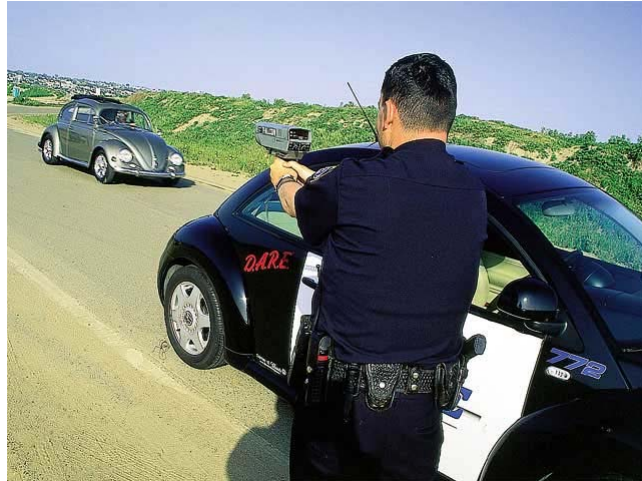
7

Sea traffic control – used in the seaports and on board of the ships



8

Road traffic control – used by the police to monitor car speeds



9

Weather forecasting and monitoring

- http://app2.nea.gov.sg/rain_animation.aspx

[Click here](#)

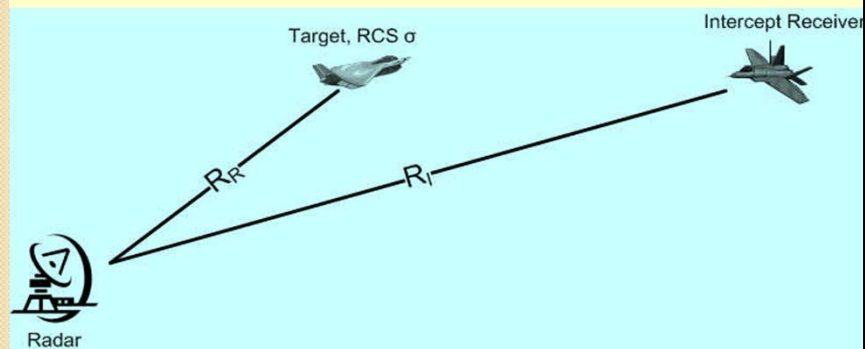


What's next after DIP?

- We have put in place a series of programmes for interested students !

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EE4190 Introduction To Modern Radar



Radio Detection and Ranging

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DESIRED OUTCOME

At the end of the course, the students are able to understand the working principles and operations of a typical radar system so as to be able to participate in the design, installation and management of some typical radar systems.

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Teaching Team Members

- Tan Shen Hsiao
 - Senior Research Scientist, TL@NTU
- Ang Wee Peng / Yap Han Lun
 - Distinguished Member of Technical Staff, DSO National Lab
- Sylvain Azarian / Jonathan Pisane
 - Researchers, Supelec, France
- Ng Boon Poh
 - Course Coordinator & Tutor, NTU

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Course Awards



- TL@NTU Radar Award
- Award:
 - S\$500 for top student in the class
 - S\$500 for top Singaporean student in the class. (if overall top student is a Singaporean, he/she will receive S\$1,000.)

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What's next after B.Eng? -- PhD Programme

- TDP PhD scholarships / sponsorship from School of EEE and TL@NTU
- Up to S\$3200++ per month
- Mindef/DSO (several scholarships for Singaporeans)

Careers in Radar

Job Opportunities in homeland securities, defense industries, biomedical engg ...

- TL@NTU
- DSO National Lab
- Research teams in School of EEE
- Mindef
- Singapore Technology
- Thales Solutions Asia
- CAAS (*Civil Aviation Authority of Singapore*)
- PSA Singapore
- Companies in aerospace industries

Careers in Radar (con't)

Some development out there ...

- Thales Solutions Asia has just set up a Radar Centre of Excellence on 25 Jan 2013.
- Seletar Airport (Seletar Aerospace Park) expanded to be Business Aviation Hub
- Air traffic management research centre to open by in 2014.



Careers in Radar (con't)

- New radar system for new air traffic control centre opened in Feb 2014.
 - Singapore's aviation sector is expected to grow at an annual rate of five per cent until the end of the decade.



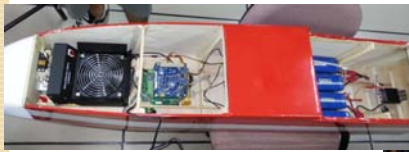
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What Students Did in the Past

- Implementation of a radar prototype on a Unmanned Aerial Vehicle
- Construction of an ultrasound pulse radar on the Labview Elvis platform
- A phased array radar system simulator
- Target detection using radio broadcasting stations
- Development of a software defined radar (SDR)
- Police Radar Speed control system

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Students in action...



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Wish you a fruitful DIP

Thank you

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