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| **Date & Time**  | 14.00pm, March 2, 2015 |
| **Revenue**  | SMU SIS MR4.1 |
| **Supervisor**  | Doc Kam  |
| **Attendees**  | Wang JingSong Chengyue |
| **Agenda**  | 1. Mid-term progress review
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**Minutes:**

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| **Time** | **Topic** | **Comment**  | **Action by** |
| 14:00 | Background research | * HPB currently is not using geospatial analysis
* Prove our project is useful
* Literature in developed countries such as USA, HK shows that they’ve implemented geovisualization
* Justify our motivation
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| Data dictionary  | * Source of the data
* Latest update date
* Description
* Number of attributes
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| CSR | * Statistical significance
* Underlying test whole notion of CSR
* CSR is the context to test the distribution
* Simulation
* The analysis is performed on CSR with the number of simulations
* Patterns: random, clustered, disperse
* Significance rejects or supports hypothesis
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| Homogeneous vs Inhomogeneous  | * Home assumes distribution of services is not affected by any underlying constraints
* Whether to conduct analysis on Homo or Inhomo
* Boundary technically should improve data analysis
* Study the difference btw one n the other and which fits Singapore better
* In the end we should be able to recommend
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| Analysis Flow | * Quadrat & K-function
* L-function
* Kernel Density Analysis
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| QGIS & R for PPA | * QGIS for quick test
* Can do quadrat analysis
* Processing > use R scripts directly
* Update to 2.8.1 > Kernel Density
* Install R 3.0 in C: drive
* Control panel > set system variable
* 32-bits vs 64-bits
* cmd test "r"
* Check R scripts Activate in QGIS
* Change directory
* Processing toolbox
* PPA & analysis
* Script editor > change grid
* R is statistical analysis program
* CRAN Task View Analysis
* **spatstat** covers both homo & inhomo
* Standard documentation
* Provide interface to change Grid by changing ‘nx’ & ‘ny’
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| Challenge of using R | * Dependency
* Recognize projection automatically
* Use script editor to change
* Convert data to data frame format
* Function “SpatialPoints” converts shp file to data frame
* SMU library → Index → Springer (SMU) → Applied Spatial Data Analysis → 1st chapter Spatial Data Import & Export → Spatial PPA → Intensity (Kernel Density)
* Build own **L-function**
* Nsim (n simulation)
* Rester → Heatmap Plugin for Kernel Density Analysis → Limitation: cannot define boundary
* Another Kernel Density estimation from R
* Create own interface & function to do Kernel
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| Tasks to be done | * Analysis
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| 15:00 | **END** |