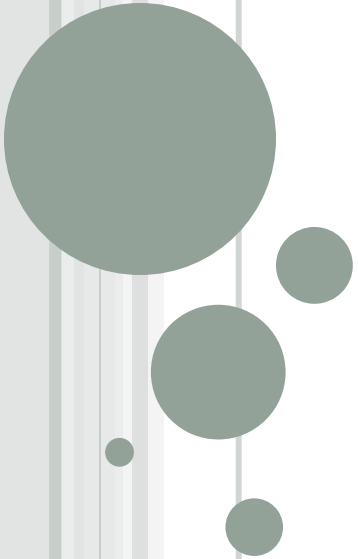

Indexing Methodology: II
Discussion Week 7

Database Systems (H)
Dr Chris Anagnostopoulos

B+ Tree on Non-ordering Non-key!

- ***n* = 1000** departments; ***r* = 100,000** tuples (employees)
- Blocking factor **bfr = 50 records/block**
- DNO is *uniformly* distributed: ***d* = *r*/*n* = 100 employees/department**
- **Leaf node order: *q* = 10 DNO values/data-pointers**
- **Tree node order: *p* = 10 tree-pointers**
- **100 pointers can fit in 1 block.**

Task 1: How many leaf nodes do we need for *all* DNO values?

Task 2: Which is the B+ Tree *leaf* structure, the *whole* B+ Tree structure and finally the *expected cost* searching for the employees of Dept. 3.