MIND MAP FOR ALGORITHM DESIGN

Algorithm

Design

Greedy

Algorithm

Randomized

Algorithm

Dynamic

-

programming

solutions

Divide &

conquer

algorithm

Approximate

Algorithm

random

choices

faster

solutions

overlapping

subproblem

& optimal

substructure

property.

problem,

recursively

solving &

recombining

Example:

Knapsack,

subset

-

sum

problem.

local

optimum

future

consequences

minimum

vertex

cover

problem

Merge

sort,

Quicksort

smallest

set of

vertices