**CMPEN 431 Final Project Report**  
Design-Space Sequencing Heuristics for EDP and ED²P

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In this project, we explored different processor designs using a tool called SimpleScalar to see which setups work best under different metrics. We looked at four different goals throughout this project which were: EDP (Energy x Delay), ED2P (Energy x Delay2), EDAP (Energy x Delay x Area), and ED2AP (Energy x Delay2 x Area). I created rules (other known as heuristics), in order to help the computer pick better, calculated decisions instead of just choosing randomly. For EDP, I started with a simple, low-energy design and made minor improvements. For ED2P, I started with a powerful setup and began removing components if they didn’t have an impact on the delay. After testing 1000 designs for every metric, I found that the designs varied depending on the goal. Therefore, from this project we can assume that optimizing a processor depends on which improvement you want to target, whether that be saving energy, speed, or using less space.