**Suggested research topics**

**Winter semester of the academic year 2019/2020**

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| **Course name in Arabic: الدوائر الرقمية**  |
| **Course name in English: Digital Circuits** |
| **Lecturer Dr Ahmed Mohamed Reda Hassan Elashry** |
| **Level: First level**  |
| **Department: Bioinformatics** |

**Write a research paper about one of the following titles:**

1. **Digital systems and binary codes.**
2. **Boolean algebra and logic gates.**
3. **CANONICAL and standard forms of boolean functions.**
4. **Gate-Level Minimization,** **integrated circuits, and the map method**
5. **Combinational Logic, use “Code Conversion” as a case study.**
6. **Combinational Logic, use “Decoder and encoder” as a case study.**
7. **Combinational Logic, use “BINARY ADDER-SUBTRACTOR” as a case study.**
8. **Combinational Logic, use “BINARY ADDER-SUBTRACTOR” as a case study.**

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| **Professor Signature** | **Date** |