

PROFESSIONAL DETAILS



Fullname Emad Hussien Sadiq

E-mail emad.sadiq@dpu.edu.krd

Phone 07504588466

Gender male

Birth Date 1971-01-13

Address Iraq - Duhok

Nationality Iraqi

- [Technical College of Engineering](#)
- [Energy Engineering](#)

LANGUAGE

- **Kurdish** (Native)
- **Arabic** (Proficient)
- **English** (Proficient)

EDUCATION

Jun, 2016

Assistant lecturer

Energy Engineering

Duhok Polytechnic University

PUBLICATION JOURNAL

Sep, 2022

[SDS: Scrumptious Dataflow Strategy for IoT Devices in Heterogeneous Network Environment](#)

Smart Cities (Issue: 3) (Volume: 5)

Communication technologies have drastically increased the number of wireless networks. Heterogeneous networks have now become an indispensable fact while designing the new networks and the way the data packet moves from device to device opens new challenges for transmitting the packet speedily, with maximum throughput and by consuming only confined energy. Therefore, the present study intends to provide a shrewd communication link among all IoT devices that becomes part of numerous heterogeneous networks. The scrumptious dataflow strategy (SDS) for IoT devices in the heterogeneous network environment is proposed and it would deal with all link selection and dataflow challenges. The SDS would accomplish the targeted output in five steps: Step 1 determines the utility rate of each heterogeneous link. Step 2 develops a link selection attribute (LSA) that gauges the loads of network features used for the link selection process. Step 3 calculates the scores of all heterogeneous networks. Step 4 takes the LSA table and computes the network preference for different scenarios, such as round trip time (RTTP), network throughput, and energy consumption. Step 5 sets the priority of heterogeneous networks based on the scores of network attributes. Performance of the proposed SDS mechanism with state of the art network protocols, such as high-speed packet access (HSPA), content-centric networking (CCN), and dynamic source routing (DSR), was determined by conducting a simulation with NS2 and, consequently, the SDS exhibited its shrewd performance. During comparative analysis, in terms of round trip time, the SDS proved that it utilized only 16.4 milliseconds to reach IoT device 50 and was first among all other protocols. Similarly, for network throughput, at IoT device 50, the throughputs of the SDS are recorded at 40% while the rest of other protocols were dead. Finally, while computing the

energy consumption used to reach IoT device 50, the SDS was functional and possessed more than half of its energy compared to the other protocols. The SDS only utilized 302 joules while the rest of the protocols were about to die as they had consumed all of their energy (PDF) smartcities-05-00056. Available from: https://www.researchgate.net/publication/363318710_smartcities-05-00056 [accessed Sep 06 2022].

Jan, 2022

[Power losses evaluation in low voltage distribution network: a case study of 250 kVA, 11/0.416 kV substation](#)

Indonesian Journal of Electrical Engineering and Computer Science (Issue: No. 1, January 2022, pp. 35~41) (Volume: Vol. 25,)

Nowadays, the electrical system is more complicated due to the continuous growing. Power losses is the biggest challenges for distribution network operators. There are several causes for technical losses. Losses caused by unbalanced phase current are one of the main reasons which can be minimized by small investment through dedicating a technical line staff. As a result of connecting many single loads to three phase four wire power supplies, the current flowing in each phase will be unequal and accordingly there will be a current flowing in the neutral wire. Unbalancing currents in phases can lead to increase the conductor temperature and accordingly the conductor resistance is higher which contribute to increase the power losses. Loss reduction can lead to enormous utility saving. Besides, it increases system capacity and save more money which can be used later for future planted system. This study concentrated on the amount of copper losses in distribution networks as a result of unequal loading of the three phases four wires network. The distribution network is more efficient and more economic assuming that the right procedure is applied to balance the distribution system and achieve the required calculations which require a little investment

Oct, 2021

[Time-Based Meticulous Analysis of Pandemic Spreading Ratio using Simpy Framework](#)

International Journal of Computer Trends and Technology (Issue: 9, 33-41) (Volume: Volume 69)

Due to the unavoidable spreading of covid-19 and even taking all substantial measures, the infected ratio and the expiry rate of lives seem uncontrolled. In this aggravated situation, it seems crucial to take extraordinary measures to deal with the extraordinary pandemic situation, and it is only possible if the actual pandemic propagation ratio is to be acquainted. Therefore, a shrewd pandemic model is being developed that will generate real-time infection statistics on an hourly, weekly, and monthly basis. This shrewd model utilizes the well-known dataset, and when this dataset will be applied to determine the status of three types of infection as the number of infected people, the time when pandemic begins, and the time when the pandemic disappears. The time-based results are generated by conduction simulation in the python Simpy framework, and the

generated results are the hallmark of real-time infection spreading ratio, and it shows that when the extraordinary measures for infection ratio are indispensable and when it becomes plausible.

Jun, 2021

[Fuzzy based multi-line Power Outage Control System](#)

Smart Cities (Issue: 2) (Volume: 8)

Transmission lines are among the most important power grid equipment in which their removal can lead to subsequent outages. One of the situations which lead to blackouts is multiple line outages. Therefore, multiple line outage detections (MLOD) are a necessity in the power system for protection actions. This paper proposes a fuzzy inference system (FIS) to identify multiple line outages. The proposed FIS can determine multiple line outage conditions by continuously monitoring the lines circuit breakers (CBs) status. For this purpose, by introducing the line CBs status as inputs, the status of the predefined line outage scenario is determined as the output of the proposed FIS. This study is helpful for the power system researchers to make decisions about power system protection. The proposed fuzzy MLOD system has the advantage of high precision in applying the fuzzy system as an artificial intelligence tool. For the reason of problem dimensions limitations, in this paper, just single and multiline outage contingencies are considered for the MLOD problem although the proposed method can be extended to detect triple and more line outage contingencies by definition the additional fuzzy rules. The proposed fuzzy MLOD system is tested on IEEE 5-bus system and the results are presented

CONFERENCE

Jun, 2020 - Jun, 2020

[Asymmetrical Multilevel Inverter with Modified Absolute Sinusoidal PWM Technique for Sensorless Control of Induction Motor](#)

Turkey, Cyberspace As Guest

Sensorless speed and torque control of a three-phase induction motor utilizing cascaded H-bridge inverter with unequal selected DC voltage sources (USDCVS) is presented in this study. Several output voltages with minimum distortions and IGBTs are achieved with DC input voltage sources equal to (1, 3, 9) Vdc. The induction motor speed and torque are estimated depending on the instantaneous output phase voltages and currents of the drive circuit. A novel controller circuit

is built depending on a modified absolute sinusoidal PWM (MASPWM) technique. Embedded s-function is coded to regenerate switching pulses and get various output levels. Simulation results demonstrate that the USDCVS of the multilevel inverter based on MASPWM technique produces different output levels with acceptable distortion. Also, show an acceptable sensorless speed and torque responses at steady-state and dynamic operation conditions under different speeds and mechanical load torques that explained the strength of the drive and control circuits

WORKSHOP

Apr, 2022 - Apr, 2022

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Azadi Hall As Guest

Workshop

Feb, 2022 - Feb, 2022

[Ranking Criteria According to NUR Regulations](#)

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SEMINAR

Apr, 2022

[Nano Technology](#)

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Apr, 2022

[Geothermal heating and cooling](#)

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Jan, 2022

[High performance Asphalt concrete](#)

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Jan, 2022

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Jan, 2022

[Power losses evaluation in low voltage distribution network: a case study of 250 kVA, 11/0.416 kV substation](#)

Energy Engineering, Hall 3 As Presenter

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