

## **Abstract**

### **English:**

In the digital age, cybersecurity has become one of the most pressing challenges for modern society. With the increasing reliance on digital technologies, cyber threats have evolved, posing significant risks to individuals, businesses, and governments. This presentation explores the current cybersecurity challenges, including rising cyberattacks, data breaches, and the complexity of securing digital infrastructure. We propose leveraging Artificial Intelligence (AI) and Machine Learning (ML) as a solution to enhance cybersecurity measures. AI and ML technologies can analyze vast amounts of data, identify patterns, and detect anomalies to prevent and mitigate cyber threats effectively. By integrating these advanced technologies, we can bolster our defenses against cyberattacks and safeguard our digital environments.

### **Kiswahili:**

Katika enzi za dijitali, usalama wa mtandao umekuwa changamoto kubwa kwa jamii ya kisasa. Kwa ongezeko la utegemezi kwenye teknolojia za dijitali, vitisho vya mtandao vimeendelea, na kuweka hatari kubwa kwa watu binafsi, biashara, na serikali. Uwasilishaji huu unachunguza changamoto za usalama wa mtandao za sasa, ikiwa ni pamoja na kuongezeka kwa mashambulizi ya mtandao, uvunaji wa data, na ugumu wa kulinda miundombinu ya dijitali. Tunapendekeza kutumia Teknolojia ya Akili ya Bandia (AI) na Kujifunza kwa Mashine (ML) kama suluhisho la kuboresha hatua za usalama wa mtandao. Teknolojia za AI na ML zinaweza kuchanganua kiasi kikubwa cha data, kubaini mifumo, na kugundua mabadiliko ili kuzuia na kupunguza vitisho vya mtandao kwa ufanisi. Kwa kuunganisha teknolojia hizi za kisasa, tunaweza kuimarisha kinga yetu dhidi ya mashambulizi ya mtandao na kulinda mazingira yetu ya dijitali.

### **Luo:**

Mado nyinga ni kitimo, kambi o nyiego e koro mar kwayo. Kendo koro itien jo ni kitimo mar tikni, nyingi to adhi o ng'eyo e kitimo. Kinyiso ma ok ng'o ni kitimo, ni koik o wigi o nyinga ni kwo, koro wachek boma, ng'a ni ilimo to ng'a. Kinyiso ma nyinga e koro, koro wan-o ni kitimo, ni koik o wigi to ni kisomo, kokal ni adhi o ng'eyo e kitimo. Nyingo to kitimo ni wan-timo ni gik ma wi AI (Akili ya Bandia) e ML (Kujifunza ni Mashine) koro ma o nyinga. Tekonojia ma AI e ML wan-o ni kitimo ni gik ma ni chipo, koro nyalo duok e kitimo kinyiso e kitimo.