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| S.NO | Application Domain | Complex problem identified | Justification |
| 1 | Cybersecurity  (Network security) | Detecting and mitigating Advanced persistent threats(Apts) | APTs pose significant risks to national security, intellectual property and sensitive data |
| 2 | Renewable energy integration | Optimizing grid management for high renewable energy penetration | Renewable energy growth requires efficient grid management to ensure reliability and stability |
| 3 | Climate change mitigation | Optimizing global carbon capture and storage | Climate change necessities urgent carbon emissions reduction carbon capture and storage is critical but its implementation faces technical economic and policy challenges |