



**ELECTRICAL  
AND COMPUTER  
ENGINEERING  
WITH DR YU CHEN**

**TALKING POINTS**

**KNOWLEDGE**

1. What are deepfakes?
2. What are some of the problems that deepfakes can cause to society?

**COMPREHENSION**

3. Why are deepfake attacks on the rise?

**APPLICATION**

4. Why is it important to find a means of detecting and combatting deepfake attacks?

**ANALYSIS**

5. Yu talks about the method of using the Electrical Network Frequency (ENF) to verify the authenticity of video/audio recordings. What do you think of this method? Is it not fortunate that such a method of detection exists at the same time as being unfortunate that deepfakes can be created?

**SYNTHESIS**

6. What would happen if deepfake technology advanced to the point where Yu's novel method no longer worked? What would happen if we could no longer find a way of determining whether something was real or fake? How might that change society?

**EVALUATION**

7. Highlighting the presence of deepfakes to the public is of obvious importance, but therein lies a crucial issue: asking people to ignore what they can see with their own eyes is a genuine problem (and one that George Orwell alludes to in the book *1984*). How would you communicate the existence of deepfakes to your classmates without asking them to question their sense of reality?

**ACTIVITY**

To explore the problem working to combat, try and make your own deepfake video. There are many different websites out there that can assist you – we recommend looking through this website ([beebom.com/best-deepfake-apps-websites](http://beebom.com/best-deepfake-apps-websites)) and selecting whichever one you think is best.

**One thing to make clear:** deepfakes can have harmful effects on society and individuals, so we urge you to use your deepfake video responsibly. This is an experiment – please only use images/videos that you have permission to use.

**MORE RESOURCES**

**ELECTRICAL AND COMPUTER ENGINEERING RESOURCES**

This resource lists loads of professional organisations relating to electrical and computer engineering and it should prove useful to those interested in finding more out about the field: [guides.library.ttu.edu/electrical/web](http://guides.library.ttu.edu/electrical/web)

**DEEPAKE EXAMPLES**

This website shows some deepfake examples that reveal the power and possibilities behind the technology: [www.creativebloq.com/features/deepfake-examples](http://www.creativebloq.com/features/deepfake-examples)