<u>IX Всеукраїнська студентська науково - технічна конференція "ПРИРОДНИЧІ ТА ГУМАНІТАРНІ НАУКИ.</u> АКТУАЛЬНІ ПИТАННЯ"

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ГНУЧКІ ДИСПЛЕЇ

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FLEXIBLE DISPLAYS

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INTRODUCTION

- 1. New high-tech materials that have appeared in the last decade, can change our view of how the screen should look like.
- 2. Manufacturers of smart phones and tablets are already working hard to incorporate flexible or curved screens into their devices.
- 3. The emergence of flexible displays could lead to a revolution both in the design of mobile devices and computers, and other equipment as well.

MAIN PART

- 1. You shouldn't confuse curved displays with flexible ones.
- 2. It started with Hewlett Packard Company, together with researchers from Arizona for the first time presented the prototype of a flexible screen. 2008
 - a. It took 90% less material to make this display than to manufacture LCD panels
- 3. Two years later, the Taiwan Institute has developed a flexible display for readers based on AMOLED technology.
 - 4. Ultimately, flexible displays have been divided into two main types.
 - a. Displays based on the use of "electronic ink"
 - b. Displays OLED (AMOLED and OLED screen)
 - 5. In the second half of 2001, Nokia has demonstrated a prototype device with flexible display.
 - 6. In early 2013 Samsung introduced a line of flexible screens Youm.
- 7. In a year at the exhibition dedicated to flexible screens in Canada, the company Human Lab demonstrated the first flexible smartphone.
 - 8. At the end of 2013, Samsung released the Galaxy Round.
 - 9. Any device can be equipped with a screen that will exceed the size of the device.
 - 10. They can be used as an accessory for clothing.
 - 11. Flexible screens are highly resistant to damage.
 - 12. The comfort of use.
 - 13. Flexible displays thinner, lighter, modern displays.
 - 14. Such screens due to the lack of glass become stronger.
 - 15. Quality image.
 - 16. No hardware buttons.
 - 17. Low power consumption
 - 18. The emergence of flexible displays on the market can contribute to the development of new devices.
- 19. The most fantastic electronic devices can be made from the wallpaper to the bracelets with flexible displays throughout the body.
 - 20. Options for further use of such displays are endless.
 - 21. At present, the flexibility and plasticity is not of great value for most consumers.
- 22. Such display is not needed by an ordinary user because of the high cost and lack of program shell for them.
- 23. Manufacturers must find the real arguments, capable to make such displays attractive and useful for users
 - 24. This may happen in the near future.