

# Call and Charge the Mobile by Voice Communication

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In 2016, there were 4 billion people using mobile phones. Most of the people face its battery time problem usually. Manufacturers tried to cope up with this problem by enhancing the charging capacity of battery packs. In this project a device has been developed which can charge mobile battery during phone calls or playing some music. This device is based on Faraday's law and principle of step up transformer. During phone call sound waves are converted into electrical current. Then this electrical current is supplied to a primary coil. Then it induces current in secondary coil up to 20 times. These primary and secondary coils are suspended inside a strong permanent magnetic field and coil starts vibration. Due to this vibration of coil inside strong magnetic field current is induced in the coil. This current is rectified and provided to mobile for charging. Experimental calculations were made by testing Input (very small) power and output that is enough to charge the mobile phone. This device can help to regulate cellular communication in critical conditions when solar power banks fail to work.