★★★ ２００９年度第９回知的財産翻訳検定＜第４回英文和訳＞ ★★★

≪１級 -電気・電子工学-≫

【解答にあたっての注意】
１．＊＊＊START＊＊＊から＊＊＊END＊＊＊ までを和訳してください。
２．問題は３題あります。それぞれの問題の指示に従い３題すべて解答してください。
３．課題文に段落番号がある場合、これを訳文に記載してください。
４．課題に図面が添付されている場合、該当する図面を参照してください。
※図面添付のない課題もございます。
★「課題図表の表示／非表示」リンクで表示
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【問１】次の米国特許出願明細書のクレームを翻訳してください。参考資料として関連説明と図を添付しています。

＊＊＊START＊＊＊

1. An imaging apparatus, comprising:

a print engine for printing an image on a recording sheet;

a sheet feed mechanism configured to feed said recording sheet through said print engine; and

a controller communicatively coupled to said sheet feed mechanism and said print engine to operate said sheet feed mechanism and said print engine in a selected one of a plurality of operation modes, said plurality of operation modes including

a continuum representing a plurality of traditional printing modes, said continuum being defined in terms of print quality of image density versus mode throughput rate of pages per minute wherein a decrease in print quality corresponds to an increase in mode throughput rate, and

a green mode located outside said continuum.

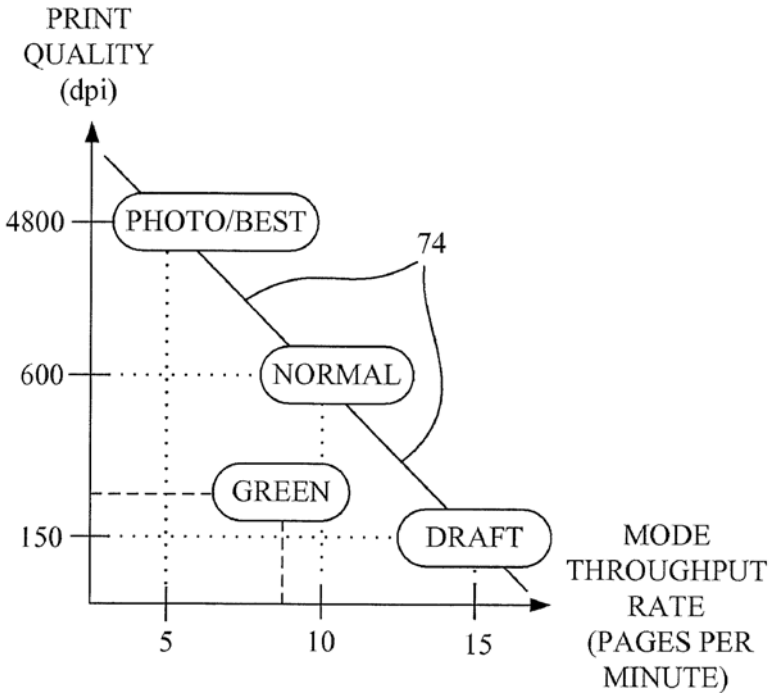
２. The imaging apparatus of Claim 1, wherein said green mode has a specific combination of a print quality and a mode throughput rate different from those combinations of the plurality of traditional printing modes so as to make an energy consumption lower than any of the plurality of traditional printing modes.

3. The imaging apparatus of claim 1, further comprising a plurality of selectable hardware functions, said controller executing program instructions to put non-essential hardware functions ancillary to a selected hardware function into one of an off state and a reduced power consumption state to supplement a reduction in said energy consumption.

＊＊＊END＊＊＊

（クレーム作成のための参考資料としての記述と図）

Imaging apparatuses, such as printers and multi-function machines having printing functionality, typically have three or more traditional printing modes: e.g., Draft Mode, Normal Mode, and Best/Photo Mode. These modes typically make a trade-off between printer throughput and print quality. For example, in comparing the Draft Mode, Normal Mode, and Best/Photo Mode, in that order, the printer throughput decreases as the print quality increases. An increasing number of people are becoming environmentally aware, and have a stronger desire to reduce personal energy consumption from non-renewable energy sources, commonly referred to as going "green" or reducing one's "carbon footprint".


PRINT
QUALITY
(dpi)
4800
600
150
PHOTO/BEST
NORMAL
GREEN
DRAFT
74
5
10
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MODE
THROUGHPUT
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(PAGES PER
MINUTE)

【問２】　次の米国特許出願明細書中の背景技術に関る記載内容について翻訳してください。参考として図を添付しています。

Conventionally, in order to fully understand the relative position relationship between the stator and the mover to enable the user to input correct driving motor angles when starting the linear motor, as shown in FIG. 1, the mover W is disposed with a position feedback device H which includes three linearly-arranged Hall sensors H1, H2 and H3. The direction in which the three Hall sensors are arranged is the same as the direction in which the N-pole A2 and the S-pole A3 of the pair of magnetic poles A1 of the stator are arranged. The three Hall sensors H1, H2 and H3 are positioned correspondingly to the three coils (not shown) of the mover W.

＊＊＊START＊＊＊

For the linear motor is a three-phase motor, when the waveform of the mover W cooperates with the position feedback device H and one pair of magnetic poles A1, as shown in FIG. 2, the oscilloscope shows that there are three sinusoidal waves W1, W2 and W3. The angle of the pair of magnetic poles A1 is 360 degrees. The phase differences of the two adjacent sinusoidal waves W1, W2 and W2, W3 of the three sinusoidal waves W1, W2 and W3 are both 120 degrees.

The angles of the three sinusoidal waves W1, W2 and W3 with respect to A1 are a, a+120 degrees and a+240 degrees, respectively. The three Hall sensors H1, H2 and H3 are connected clockwise to correspond to the three coils of the mover W, so as to sense the three sinusoidal waves W1, W2 and W3, and the relative positions of the respective Hall sensors H1, H2 and H3 to the respective sinusoidal waves W1, W2 and W3 must be the same, so the distances between the two adjacent Hall sensors H1, H2 and H2, H3 must correspond to the phase difference 120 degrees.

＊＊＊END＊＊＊

By conversion, if the length of A1 is L, the distance corresponding to the phase difference 120 degrees is L/3, so after the position feedback device H ignores the some lengths of the three Hall sensors H1, H2 and H3, its size is just the summation of the distance between the two adjacent Hall sensors H1, H2 and the distance between the two adjacent Hall sensors H2, H3, namely, 2 L/3.

（背景技術の参考としての図）

Figure 1

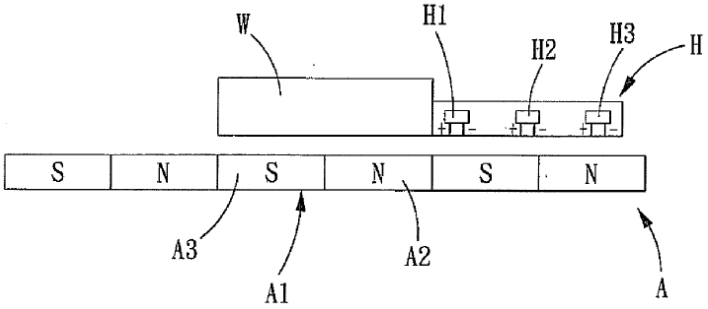
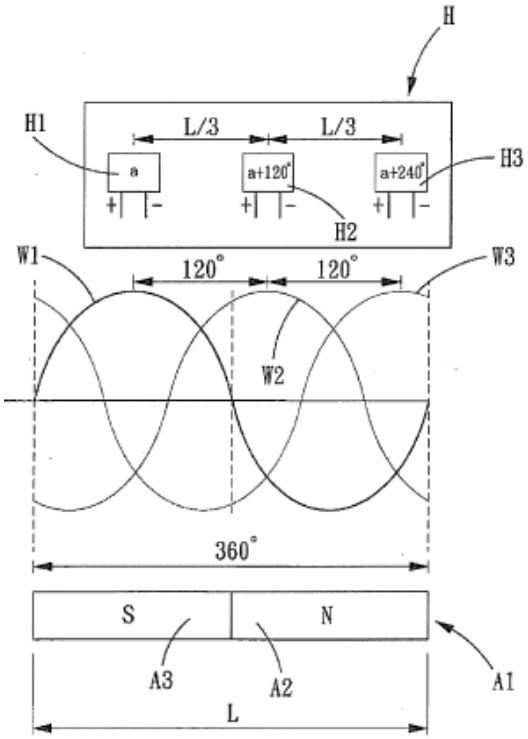



Figure 2



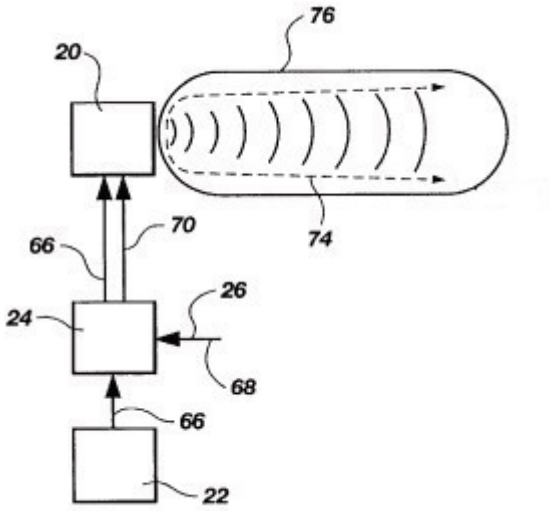
【問３】　次の米国特許出願明細書の実施例の説明に関る記載内容について翻訳してください。参考として図を添付しています。

＊＊＊START＊＊＊

The electrical signals involved are the first ultrasonic signal 66 which is the fundamental wave, and the electrical signal 68 which represents the new sonic or subsonic wave to be combined with the ultrasonic signal 66. The combination of the signals 66, 68 creates a new electrical signal 70 as a new upper sideband that is the sum of signals 66 and 68, along with signal 66, both of which are emitted from the ultrasonic transducer 20 as a compression wave 76.

A listener will hear the new compression wave 76 from a region of interference 74 which generally can begin at a transmitting face of the ultrasonic transducer 20. Except for the audible evidence to the contrary, this might lead the listener to incorrectly conclude that the ultrasonic transducer 20 is generating the new compression wave 76. By definition, the ultrasonic transducer 20 cannot directly generate audible frequencies. Therefore, what one hears is the interfering ultrasonic compression waves interacting in accordance with the acoustical heterodyning effect. It was discovered that the two ultrasonic compression waves are created from 1) the new electrical signal 70, and 2) the first ultrasonic signal 66. These respective compression waves corresponding to signals 66 and 70 are propagated at the transducer 20, providing the required two ultrasonic wave trains for acoustical heterodyning interference.

＊＊＊END＊＊＊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