Consider the Turing-recognizable language *A* which contains the descriptions of all the Turing machines, therefore there must exist an enumerator *E* to enumerate it.

Consider $\langle M_i \rangle$ is the ith output of *E*. Assume $s_1, s_2, s_3 \ldots, s_i$ are the all possible strings of $\{0,1\}^*$. It means $s_1, s_2, s_3 \ldots, s_i$ are made up of combinations of 0's and 1's.

Consider a decidable language *D* is defined as follows:

For a string $S_{i,}$

• If $\langle M_i \rangle$ accepts then S_i does not belongs to the language *D*.

• If $\langle M_i \rangle$ rejects then S_i belongs to the language *D*.

Here, the language *D* is a decidable language and its decider is not present in the list. Therefore, it is proved that there is a decidable language *D* whose decider is not present in *A*.