There are well-known classes of problems that are intractably difficult for computers, and other classes that are provably undecidable. Does this mean that AI is impossible?

They do pose some obstacles, but it doesn't mean that AI is impossible. The state spaces of many problems grow exponentially and we still found ways around such intractabilities to surpass human performance.

In some cases, we could give up exact solutions and compute approximate solutions so that problem is now tractable.